

# THE MINING CONGRESS JOURNAL

VOL. I

SAFETY—EFFICIENCY—CONSERVATION

No. 4-5

## OUR MISSION

**T**O reduce, so far as is humanly possible, the number of killed and injured in mining operations:—to provide for the widows and orphans created by unavoidable accidents through a system of workmen's compensation, fair alike to the employer and the beneficiary; to conserve, so far as is economically possible, the present annual waste of two hundred million tons of coal; to stimulate the production of gold in order that the parity between basic and credit money may be kept at such ratio as will insure stability without restricting our circulating medium; to create conditions under which the supply of commercial minerals may meet every demand of commerce and industry; to maintain a high scale of wages, create the best possible conditions for the workman, leave a fair profit to the operator, the lowest consistent price to the consumer,—and above all, to foster a perfect co-operation between all classes interested in the mining industry. The American Mining Congress solicits the support and co-operation of all who approve these purposes.

APRIL-MAY, 1915

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APRIL-MAY

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Real mining men should be active members. An application blank will be found on another page of this issue.

Associate memberships are designed for those not actively interested in mining, but who are willing to assist a state Chapter of the Mining Congress in helping to develop the Mining industry within the State. All memberships include subscription to the MINING CONGRESS JOURNAL.

Every member of the Mining Congress should undertake to send in at least one application each month. Will you help by having the following blank filled in and mail to this office?

**SUBSCRIPTION AND APPLICATION FOR ASSOCIATE MEMBERSHIP  
IN THE  
AMERICAN MINING CONGRESS**

.....191.....

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BONANZA MINE, ALASKA  
One of the notable developments in the northern territory. It is at the terminus of the Copper River Railroad

# THE MINING CONGRESS JOURNAL

*Official Organ of the American Mining Congress*

## ERA OF RAPID DEVELOPMENT IS EXPECTED ALONG NEW ALASKAN RAILROAD

**Thomas Riggs, Jr., Discusses Plans of Commission and Resources of Area to be Traversed—A. H. Brooks, of Geological Survey, to Lead Party of Scientific Men Into Territory June 1**

Announcement by the President of the United States of the selection of the route for the Government railroad in Alaska makes April 10 a red letter day in the history of the northern peninsula. None doubts that this date will mark the opening of an era of prosperity and development never approximated, north of the sixtieth parallel.

In the course of the discussion regarding the proper route for the construction of this railroad opinion has been divided. Granting a little time, however, for the disappointment of some few to wear off, it is expected to be a very general admission that the President showed good judgment in his selection. One of the advantages which stands out strongly in the selection of the Seward route is the insurance of the operation of two important railroad lines into the interior. The Copper River and Northwestern is certain to continue in operation and doubtless will be extended from time to time.

### BROOKS TO LEAVE SOON

Alaska is certain to attract greater attention from this time forward than ever before has been the case. A. H. Brooks, having charge of the Alaskan mineral resources division of the Geological Survey, is soon to leave for Alaska

at the head of a splendidly equipped party of geologists, topographers and their assistants. The selection of the route for the Alaskan railway will enable them to devote a considerable portion of their efforts to that section of the territory which will be tapped by the new railroad.

According to Thomas Riggs, Jr., one of the members of the Alaskan engineering commission, which is to have charge of the construction of the road, every effort is going to be made to hurry the completion of the line. In connection with the construction of the road Mr. Riggs said:

"It will first be necessary to put in operation the existing line. New construction will be limited this year, owing to the small amount of money which will be available after the purchase price of the road and other preliminary expenses have been met.

### VALUE PROVEN

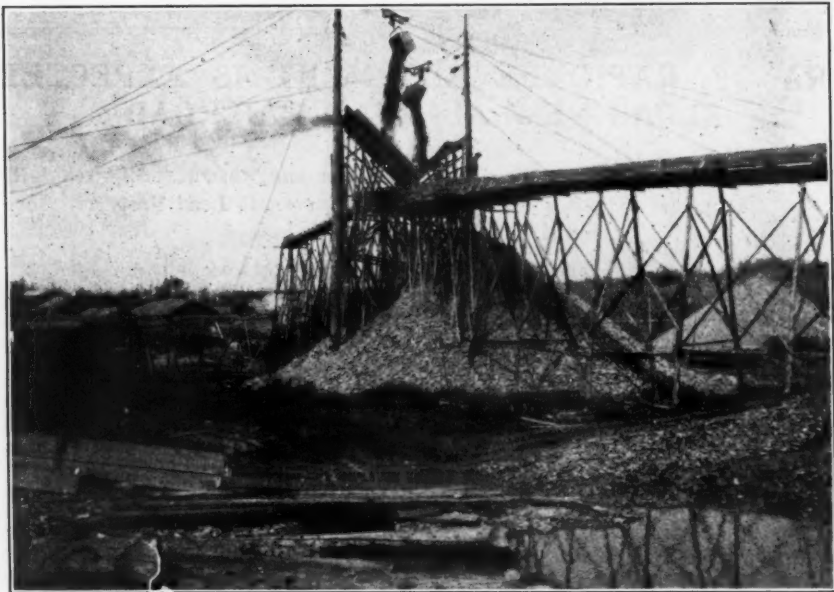
"It is greatly to the interest of the nation that the Matanuska coal fields be opened at the earliest possible moment. Development work in this field has gone to such an extent that there is little doubt as to the vastness and quality of coal available. Tests on the cruiser Maryland show that this fuel answers all the requirements of naval coal.

"It is not my intention to intimate that the Behring River field on the Copper River and Northwestern does not contain just as good coal, despite the fact that the sample submitted did not pass the naval tests as satisfactorily.

"There are mining properties of all classes on the Kenai peninsula. There are many lode prospects and some operating mines. We are constantly getting reports of important discoveries in the

which must be during the four months open season. The opening of the railroad will reduce the freight rate one-half, greatly reduce the length of time necessary for transportation and make possible shipments throughout the year.

"Wood is used almost entirely as fuel at present. One-hundred thousand cords a year are used. The average cost is \$11.50 a cord. The operation of the railroad will make coal available on all parts



DEEP PLACER MINING AT FAIRBANKS

This district will be benefited directly by the new railroad

foothills of Mount McKinley, which is near the line of the Seward road up the Susitna valley.

"The Fairbanks district, which will be served by the railroad, has an annual production of \$2,500,000 in gold. Recent strikes on the Tolvana River, which is fifty miles from Fairbanks, have led to the belief that another great gold producing district has been discovered.

#### HALVES FREIGHT RATE

"At the present time the average freight rate from Seattle to Fairbanks is \$70 per ton. The time necessary for transit is from three weeks to a month,

of the territory tributary to the line at \$5 or less, per ton. As one ton of coal equals two cords of wood it will allow the operation of machinery, dredges and power plants in order to handle the great low-grade gravel areas.

"Agricultural development is certain to follow the opening of the railroad. Much of the country in the Tanana and other valleys is suitable for farming, and without question, enough products can be raised to feed the mining population.

#### COAL PRINCIPAL TONNAGE

"One of the principal sources of revenue of the railroad is certain to be the

tonnage of coal handled. A large amount of this coal will be moved to the seaboard for naval purposes and for the making of coke. Coke in Alaska at present is costing \$13. This can be replaced by Alaskan coke of superior quality for \$7.

"Another important source of revenue will be the ore and concentrates shipped out for treatment. It is not at all unlikely that a smelter eventually will be erected in Alaska.

be used for ties. In the existing roads in Alaska it has been demonstrated that ties made of native spruce have an average life of five years. This compares favorably with the ties of other varieties of wood."

#### GEOLOGISTS HURRY NORTH

No time is to be lost by the Geological Survey in doing its part toward hastening the development of that portion of



TYPICAL PLACER MINING IN ALASKA

"Difficulties to be encountered in constructing the road will be no greater than in other mountainous regions. The grades across the coastal mountains will be no steeper than the existing grades on transcontinental lines in the United States. Away from the coast the snowfall is light and offers no great difficulties of maintenance or operation. In the interior the average snowfall is between 2 and 3 feet. It can be handled readily with a pilot plow. There is some heavy bridging of steel and concrete, but in the main, we intend to build only a pioneer railroad such as will answer the requirements of the country. Native timber will

Alaska which will be opened by the railroad. Mr. Brooks and his party will be on the ground about June 1. Some of the members of the party already are en route to Alaska. Mr. Brooks' party will consist of S. R. Capps, geologist; J. W. Bagley, topographic engineer; C. E. Griffin, topographic engineer; R. H. Sargent, topographic engineer; D. C. Witherspoon, topographic engineer; F. H. Moffit, geologist; J. B. Mertie, associate geologist; H. M. Eakin, associate geologist; Theodore Chapin, associate geologist; B. L. Johnson, associate geologist; George L. Herrington, junior geolo-

*(Continued on Page 216)*

**COAL MINE FATALITIES****SHOW DECREASE IN 1914**

**Deaths From Gas Explosions Increase, But  
There were Fewer Dust  
Explosions**

**More Efficient State Inspection Given as  
One Reason for Improved  
Showing**

Fatalities in coal mines in the United States in 1914 were 334 less than during the preceding year. The total fatalities were 2,451 as compared with 2,785 for 1913, says the report of the Bureau of Mines.

The principal causes of fatal accidents, that show a material decrease, were coal-dust explosions 96 per cent., haulage, 11 per cent.; and falls of roof and pillar coal 10.6 per cent. The net decrease in underground fatalities were 365, or 14 per cent. This is equivalent to a saving of one life every day during the year.

There were 331 fatalities due to gas explosion as compared with ninety-one in 1913, making a net increase of 240. Of these 331 fatalities, 261 were due to four serious explosions.

There were slight increases in fatal accidents from explosives and electricity. There was also a net increase of twenty-six fatalities in shaft accidents, or 42 per cent., and on the surface a net increase of five, or about 3 per cent. The net decrease for the year for both underground and surface accidents at coal mines as compared with 1913 was 12 per cent.

Exact figures for the number of men employed are not yet available, but taking the estimates furnished by the inspectors for part of the States and using for the other States the number of men that were employed in 1913, the estimated total number of employees for the year is 742,868 as compared with 747,644 in 1913. The fatality rate, therefore, becomes 3.30 per 1,000 men employed in 1914 as compared with 3.73 in 1913.

Excluding 1912, when the rate was 3.27 per 1,000 men employed, the 1914 rate of 3.30 per 1,000 is lower than any year since 1903.

Although there was a reduction of 12 per cent. in the number of fatalities, there was also a reduction of 10.5 per cent. in the production of coal. The United States Geological Survey estimates the production for 1914 as 510,000,000 short tons as compared with 570,048,125 tons for 1913. The fatality rate per 1,000,000 tons of coal produced in 1913 was 4.89 and in 1914, 4.81. With the exception of 1912, when the rate was 4.41, the 1914 rate is the lowest yet recorded for the United States. The amount of coal produced per fatality in 1914 was 208,078 short tons, which, with the exception of 1912, is the largest on record. The production per fatality in 1913 was 204,685 tons, in 1912 it was 226,469, and in 1907 was 144,325 tons.

There were 316 lives lost in disasters in which more than five men were killed at one time compared with 464 in 1913, a net reduction of 148, or 32 per cent. in this class of accidents.

It is not possible to attribute these lower rates to any one particular influence. They may be assigned in part to any of the following agencies or to a combination of any or all of them: Closer and more careful inspection by the State inspector; better enforcement of laws and regulations by the operators; the miner's realization of the dangers attending his daily work, and his efforts to reduce accidents, due to the educational campaign conducted in his behalf; the more general use of safety lamps in doubtful mines; the use of permissible explosives; humidifying dusty mines; first aid and rescue training which saves lives that might otherwise be lost by reason of injuries received; the enactment of industrial accident compensation laws; and last but not least the spirit of cooperation on the part of all concerned.

**Making Large Shipments**

Large shipments of bullion are being made by the Tom Reed Gold Mines Company, according to the *Mohave Miner*. The mine is said to be in splendid ore and an unusually high saving is being made by the use of the cyanide process.



## INDIANA COAL OPERATORS TELL OFFICIALS OF SELLING AGENCY PLAN

Committee Lays Project Before President, Department of Justice and Federal Trade Commission—Full Understanding Shown of Difficulties Surrounding Producers—Folly of the Continuance of Existing Wasteful Methods Brought Out

Officials in Washington have been acquainted with the untenable position of coal operators in many parts of the United States. The entire matter was analyzed this week at the White House, at the Department of Justice and before the Federal Trade Commission by a committee from the Indiana Bituminous Coal Operator's Association.

### OPERATOR'S STATEMENT

Among other things, the following facts were brought to the attention of the President and other authorities having jurisdiction.

The Indiana bituminous coal operators find themselves suffering from over-production and intense, unrestrained competition, with the result that a number of the operators have been forced into the hands of receivers, and a large number of the balance are suffering seriously from the situation.

The condition affects the laborer equally with the operator because of intermittent work. During the year 1914 they only secured 148 working days. The result is the entire absence of conservation. On the contrary, it promotes a waste of the coal in the ground because it requires the cheapest and easiest method of getting coal out, to meet the price at which it has to be sold. On a conservative estimate not more than 50 per cent. of the coal is recovered.

### ENORMOUS WASTE CAUSED

This means that in the United States as a whole, upwards of two hundred million tons of coal are wasted each year.

There are 114 companies in the States of Indiana, producing 16,000,000 tons of coal each year—a little over 2 per cent. of the total production in the United States, and in the largest market, they do not supply over 16 per cent. of the tonnage of that market.

In order to maintain this position, they are obliged to maintain something like 300 selling offices and 900 salesmen. The expenses in the mines are increased by the necessity of maintaining an organization that can pro-

duce the limit of the mine's capacity on twenty-four hours' notice.

They are competing within the boundary of their own State with the non-union States of Kentucky and West Virginia, and the union employe States of Ohio, Pennsylvania and Illinois. Outside of their own State they are competing with Kentucky, West Virginia, Ohio, Pennsylvania, Illinois and Iowa.

### MUST CUT EXPENSES

The situation is such that it is impossible for them to advance their prices and the only method left open to them to maintain their standing in the trade is to reduce their expenses, which can only be accomplished by cooperation among them.

The tentative plan which meets with their approval consists of a single selling company, which would decrease the selling cost several cents per ton, and would enable them to standardize the business and by intelligent distribution of orders, establishing of storage facilities for fine coal, for which there is an erratic demand, they could increase the present earning fully 10 cents per ton, without in any way disturbing the present price.

### LABORERS APPROVE

The representatives of the labor element of the industry have repeatedly urged such a movement in public investigations of conditions by several of the States.

The operations of the Indiana coal producing industry is confined to about five States and do not extend over the entire country. It is a fact that two of the large companies in other states produce and market a greater amount of coal than is produced and marketed in the State of Indiana.

We do not believe that it is the intention of the law or the Government to force an industry into bankruptcy. On the contrary, when such a condition arises, the sentiment of the people at large is, and that of the law and Government should be, to allow the industry involved to adopt such reasonable methods as to avoid bankruptcy, and maintain their position in the commercial world.

It is with that idea in view that they have presented the situation in detail to the Federal Trade Commission, together with a plan which they propose to inaugurate, in a measure, to protect themselves.

The position taken by the Indiana operators is that they prefer bankruptcy to a criminal prosecution for violation of the law.

#### IN FULL SYMPATHY

It is the unanimous opinion of the Federal Trade Commission, expressed by its chairman after the full commission had listened to the case of the operators, that the coal producers are entitled to full sympathy in regard to the purposes sought, but that it is not within the power of the trade commission to authorize in advance any particular course of conduct.

That the Department of Justice is fully cognizant of the details of the question was shown during the conference with the coal operators. There is reason to believe that the Department will construe very liberally any feature of the Sherman law which might be interpreted as preventing natural economies in operation. It is, of course, against the policy of the attorney-general to forecast possible prosecution.

It is not expected that the President will take any personal action to relieve the Indiana operators, but it is their desire that he be advised fully as to the principles involved which have prompted the laying of the whole matter before officials in Washington.

#### NO CHANGE IN EASTERN OHIO STRIKE SITUATION

##### Department of Labor is Optimistic, But Reasons Behind It Are Not Revealed

Advices from the Department of Labor and from the field itself indicate that the strike situation in eastern Ohio is no nearer settled than was the case months ago. While officials at the Department of Labor have hopes that a settlement may be reached in the near future, they are giving out none of the reasons on which such an optimistic conclusion is based.

#### William Disston Passes Away

William Disston, senior member of Henry Disston Sons, saw manufacturers, of Philadelphia, died April 5.

#### REPORT ON MATANUSKA COAL BY GRIFFITH REGARDED HIGHLY

In connection with the opening of the Government railroad in Alaska, it is interesting to note that the report made upon the Matanuska coal fields by Mr. William Griffith, of Scranton, Pa., in 1905, is fully endorsed by the Government tests. At this early day Mr. Griffith pointed out the undoubted naval quality of the coal and commented in detail on the advisability of opening this field for exploitation. He also proved the excellent coking properties of some of the Matanuska coals.

In many ways Mr. Griffith's report is the most comprehensive technical paper on the occurrence of coal in the Matanuska and it is to be regretted that it was not given wider publicity. Mr. Griffith was for a number of years a member of the Alaskan Committee of the American Mining Congress.

#### The Ko-Koals

A committee representing the Order of Ko-Koal, consisting of Charles K. Scull, Imperial Modoc; C. F. Kerchner, of Baltimore; W. A. Clark, of Massachusetts; president of the New England Retail Coal Dealers' Association, and Wellington M. Bertolet, secretary, Reading, Pa., met with the secretary of the American Mining Congress, at Philadelphia, April 16, at the Manufacturers' Club. The meeting was for the purpose of discussing the question of affiliation of the Ko-Koal Order with the American Mining Congress, with a view to strengthening the work of both organizations. Plans were discussed to accomplish this purpose, and the meeting adjourned with reasonable assurance that some plan can be devised for a complete working affiliation.

#### Names New Commissioners

Mayor Edward Jermyn, of Scranton, has appointed Arthur W. Long and Ralph Barrett as members of the new mine cave commission recently created by the city council.

## RESOURCES OF WEST TO BE BROUGHT OUT IN NEW GUIDEBOOK FOR TRAVELERS

**Geological Survey Bringing Out Book Which Will Give Public Benefit of Accumulated  
Data Collected During Decades of Investigation—Book Will Be in  
Popular Language—Four Routes to Be Covered**

Carrying out its policy to give the general public more ready opportunities to benefit from its work the Geological Survey is preparing a guidebook for trans-continental travelers. It will follow, in many ways, the plan of tourist guidebooks, and will be filled with interesting information, in regard to the country along four of the principal routes. The work is receiving much of the personal attention of Dr. George Otis Smith, the director of the Survey.

CONTAINS 200 PAGES

The guidebook discusses, in an interesting and easily understandable manner, the natural resources of the country. It will contain 200 pages and twenty-five maps. The maps have been arranged in a clever manner, so that they can be unfolded from the book and followed as the contents is pursued. The maps are arranged on a scale sufficiently small to allow the traveler to follow each mile of his journey.

The four routes to be covered are: Overland, Sante Fe, Northern Pacific and Coast Line. It will not be a guide restricted to certain railroads, but will cover the whole West. The primary idea is to give the traveler a large insight into the resources, developed and undeveloped of the country west of the Mississippi. With that in view, an effort has been made to set forth, not only the mineral resources of the different sections, but also the agricultural possibilities. In order to make the work entirely authoritative, the cooperation of other bureaus of Government work has been secured. The railroads, also, have co-operated by furnishing alignments and profiles.

One of the most important features of this undertaking is making public, in a

form easy to assimilate, a large store of data which has been collected by the Survey during many years. Great care has been exercised in getting it into popular and readable language.

Considerable new work, however, has had to be done to make this work possible. While nine-tenths of the facts, perhaps, already were available in the records of the Survey, the necessary one-tenth, to fill out the running story, has required the services of expert geologists. These geologists were selected with especial attention to their familiarity with the region traversed. They also have made special trips over the routes, to bring all data up to date and to fill in such details as were missing. This work has been receiving the entire attention of the following geologists: M. R. Campbell, N. H. Darton, J. S. Diller, H. S. Gale, R. W. Stone, W. T. Lee. In addition to these men, many of the other employes of the Bureau have been able to furnish interesting facts from first-hand knowledge.

### DIRECTOR'S STATEMENT

Director Smith, in his preface to these guidebooks, says: "The purpose of the series is to present authoritative information that may enable the reader to realize adequately the scenic and material resources of the region he is traversing, to comprehend the basis of its development and above all, to appreciate keenly the real value of the country he looks out upon." As illustrating the diversified natural resources that characterize different parts of the West, he adds: "One region may be such as will afford a livelihood for only a pastoral people, another may present opportunity for intensive agriculture, while another may contain hidden stores of mineral wealth that may

attract large industrial development; and taken together these varied resources afford a promise of long-continued prosperity for this or that State. To this interpretation of our own country the United States Geological Survey brings the accumulated data of decades of pioneering investigation, and the present contribution is only one type of return to the public which has supported its scientific work under the Federal Government."

Owing to the vast amount of data which have to be boiled down for this work, no estimate of the date of publication can be made at this time.

#### **UTAH FORMS CHAPTER OF AMERICAN MINING CONGRESS**

**R. C. Gemmell, of Utah Copper Co., Elected  
First Governor of New Organization**

#### **Prominent Mining Men Support New Body— Directors Are Selected**

Utah has a chapter of the American Mining Congress. It was organized April 5, in Salt Lake City. R. C. Gemmell, of the Utah Copper Company, was elected governor of the State chapter. E. L. Wolcott, assistant secretary of the American Mining Congress, aided in the preparations which led to the organization of the chapter.

The chapter is launched under very favorable conditions. It has been given the support of a large number of prominent mining men in Utah. With reference to the organization of the chapter, Mr. Gemmell said:

"I shall do all I can to forward the interests of the local chapter of the American Mining Congress and, in fact, the mining industry in general. Arizona people speak favorably to me of the work of their chapter recently organized by Mr. Wolcott. So far as Utah is concerned, if we are to make a success of the chapter, we must have the cooperation of the men in all lines of trade. It should embrace not only active mine operators and engineers, but lumber men, grocers and all who directly or indirectly are dependent in various ways upon mining. We must all work together in such

matters as legislation, freight rates and tariffs. If we go ahead in an energetic way we will be able to form a large chapter here which will result in material benefit to the mining industry and to all connected with it."

The directors elected are as follows:

Directors, three years—R. C. Gemmell, G. H. Dern, C. E. Allen, G. W. Lambourne, Fred Cowans, Duncan MacVichie, Thomas Kearns, John M. Hayes.

Directors, two years—William Wraith, C. W. Whitley, L. B. McCornick, J. C. Dick, M. P. Braffet, C. N. Strevell, C. E. Loose, E. S. Rolapp.

Directors, one year—R. J. Evans, J. F. Cowan, J. C. McCrystal, Solon Spiro, Walter Fitch, E. L. Carpenter, J. Will Knight, Imer Pett.

Executive committee—R. C. Gemmell, M. P. Braffet, G. W. Lambourne, Imer Pett, J. C. Dick.

#### **MONTANA PROFITS HEAVILY BY RISE IN METAL PRICES**

#### **Senator Walsh Says Washington's Prosperity Depends on Condition of Business in States**

Senator T. J. Walsh, of Montana, chairman of the Senate Committee on Mines and Mining, in a recent address before the Washington Chamber of Commerce, pointed out that at the present price, as compared with last year's prices, Montana's copper production for the year 1915, is worth six million dollars more than its production in 1914, and its zinc production three million dollars more than in 1914.

He pointed out that Washington, as the nation's capital, always must depend for its prosperity upon the prosperity of the several States and accompanied his invitation to visit Montana by an eloquent description of the scenic wonders of the Northwest.

#### **Report Good Ore in Philippines**

Reports of the discovery of valuable copper deposits are coming from the Zambales Mountains, in the Philippine Islands.

## UNDUE CREDIT ACCORDED HELMET MEN IN LAYLAND DISASTER, SAYS HENRY

Chief of West Virginia Department of Mines Takes Exception to Statements Given Out Lauding Bureau of Mines Men for Leading Role in Rescue Work—Miners Sign Statement

The Secretary of the Interior and George S. Rice, chief engineer of the Pittsburgh branch of the Bureau of Mines, have given undue credit to the helmet men connected with the bureau, according to Earl A. Henry, chief of the Department of Mines of West Virginia.

Mr. Henry takes exception to many of the statements which were furnished THE MINING CONGRESS JOURNAL in connection with the Layland disaster.

Mr. Henry has the following to say:

"Referring to an article in the MINING CONGRESS JOURNAL, under date of March, 1915, relative to the explosion at the Layland Mine, located at Layland, W. Va., operated by the New River and Pocahontas Consolidated Coal Company, I desire to say that I have read this article with considerable interest, especially that part which refers to the work of the rescue force, equipped with helmets being divided into three crews which worked in shifts, one shift always in advance of the force of miners engaged in bratticing and recovering the bodies. This is a misstatement of facts and is misleading to the public and unfair to the volunteers who rendered such valuable service.

### BERTOLET IN CHARGE

"The rescue work was in charge of Mr. H. M. Bertolet, the general superintendent, and the State Mine Department, ably assisted by Mr. Oscar Kneer and John Clapperton, superintendents under Mr. Bertolet, also several hundred volunteers from the different mines in the New River Coal Fields.

"While Secretary Lane and George S. Rice, through the press, give great credit to the helmet men connected with the Bureau of Mines, they would be unable to convince the mining people of

at the Layland disaster. The interview any heroic work accomplished by them makes the statement that the helmet men worked in advance of the State mine inspectors and others; that their work consisted of constructing brattices and arranging the ventilation in the dangerous sections of the mine, making it possible for the parties engaged in the rescue work to proceed without any danger whatever. If the helmet men constructed any brattices or did anything to assist in arranging a system of ventilation, it is unknown to any person who was on the ground.

### LITTLE DANGER INCURRED

"There were no extremely dangerous conditions met with in the rescue work, as the mine did not liberate explosive gas and there was no evidence of great force in any section of the mine, there being only a few light slate falls to travel over. The greatest difficulty was the after-damp resulting from the explosion.

"I have no desire to do or say anything that might detract, or take away, any honors due to the helmet men, but I honestly believe that credit should be given to those to whom credit is due, and I desire to go on record by saying that no more heroic men could be found on God's earth than those who volunteered their services and assisted in the rescue work at the Layland Mine, and they were mine superintendents, mine foremen, fire bosses, miners and mine laborers from the different mines in the New River field, who hurried to the scene and entered into this work of their own free will and did not expect to be rewarded with medals of honor for anything they might do in an effort to remove the dead, or rescue the living, if any be found entombed in the mine—



their only motive being one of humanity, and in no way seeking honors.

#### HOW THE FIVE ESCAPED

"As to the helmet men rescuing a number of live persons, this is a misstatement of facts. At midnight on Friday, March 5, all of the rescue workers were called from the mine and the fan stopped so that arrangements could be made on Saturday morning to reverse the air current and about 8 o'clock Saturday morning five Italians walked out of the mine with open lights, making the statement that on the morning of the explosion they had enclosed themselves behind a brattice at the head of No. 9 left entry off main No. 3, approximately a mile and a quarter from the entrance of the mine. These men had each day tried to make their way out but could not do so by reason of the after-damp, but after the fan had been stopped and no movement in the air current for about seven hours, these men were able to travel to the outside, at which time they reported that forty-two men were bratticed off in the tenth left heading off No. 3 main haulage, a distance of 500 feet farther in the mine than the No. 9 heading. The No. 9 and No. 10 headings were the regular working places of these men and was in no way affected by the explosion except the cutting off of the ventilation.

"The question that is raised by the mining people in this State is, Why should the use of helmets be necessary to rescue the entombed men when they were able to use an open light all the time they were entrapped in the mine and when rescued were able to travel to the outside without the use of helmets?

"In conclusion I desire to say that the Department of Mines of West Virginia is willing to cooperate and assist the Bureau of Mines in all its efforts to determine the cause of these disastrous explosions and will cheerfully adopt any recommendations given by them that will prevent another disastrous catastrophe in this State, but I do not believe that mine explosions can be prevented by long-winded statements given out to the Associated Press, booming the work of any person along this line."

#### MINERS ISSUE STATEMENT

Mr. Henry's letter was accompanied by a statement signed by a number of the men who were entombed. It reads as follows:

"We, the undersigned miners who were entombed in the Layland No. 3 Mine operated by the New River and Pocahontas Consolidated Coal Company, were rescued Saturday morning, March 6. In the rescue party were the following persons: H. M. Bertolet, general superintendent of the above named company; C. W. Workman, Cleve Martin, Chief Mine Inspector E. A. Henry, District Mines Inspectors R. B. Cobb, L. B. Holliday and Isaac Murray.

"Mr. Holliday and R. B. Cobb, district mine inspectors, were in the lead. In addition to the above number there were members of the Bureau of Mines with helmet equipment, but they were not in the lead. (Signed) Chas. Caldwell, Earl Aurentz, J. I. Caldwell, John Whalen, Ballard Clendenin, G. H. Hanson, Hugh McMillan, Geo. Parker, John Fitzpatrick, John Plesha, Sam Haggard and Caro Tullio."

#### OPERATING NEAR CAPACITY

##### Anaconda Copper Company Made Good Showing in March

During April the Anaconda Copper Mining Company expects to operate at 85 per cent. of normal capacity. Before the end of the month it is expected to have four additional mines working and to resume work at the Great Falls smelter.

During March the production was 25,800,000 pounds of copper. This is about 70 per cent. capacity. The output in February was 15,100,000 and for January, 13,700,000 pounds.

#### Publishes Remarkable Paper

Among the numerous remarkable things done by the Hill Publishing Company, of New York, may be included the Success Number of *Coal Age*, published under date of April 3.



## BUSINESS IS BETTER, BUT IMPROVEMENT HAS BEEN EXAGGERATED, AUTHORITY HOLDS

**Administration's Efforts to Create Optimism Criticized—Pig Iron Production Still Under Normal But Gradual Increase is Noted in Number of Furnaces in Blast—Exports of Machinery are Less**

"There can be no doubt that commercial conditions throughout the country are steadily improving, but there is reason to fear that the real facts are being lost sight of in the great mass of exaggeration and misrepresentation reflected in the daily press. I doubt very much if studied efforts to boom business by syndicating reports of war orders and optimistic predictions are legitimate or really helpful."

These views of the present situation are those of W. L. Crounse, Washington correspondent of *The Iron Age* and an acknowledged authority on matters pertaining to the iron and steel industry. Continuing, Mr. Crounse said:

"President Wilson has had much to say about the 'psychological depression' through which the country has been passing. It seems to me that a prosperity based on the massing of the cheering items carefully selected from the day's news, and the subordination or rejection of every report of an unfavorable character can be nothing but a 'state of mind.' The conservative business man wants facts and not fancies as a basis for his confidence and has little use for either optimistic or pessimistic coloring.

### OFFICIAL PROCEDURE

"We read in the daily press that the head of one of the Executive Departments transmits to the White House at intervals symposiums of newspaper clippings showing revivals in the industries of the country and these clippings in turn are reproduced in the dispatches of the Washington correspondents to their respective papers. The ultimate effect of such a proceeding is greatly to exaggerate the facts, for, of course, every unfavorable item in the news of the day is carefully excluded and the

casual reader receives an impression which real conditions do not warrant.

"Progress made by the iron and steel industry during the past few weeks has been very satisfactory, but there has been much exaggeration of the volume of export business covered by the general term 'war orders,' which has already become a favorite phrase with the daily press. According to the market reports of *The Iron Age*, the pig iron production of March was 2,063,834 tons, against 1,674,771 tons in February. On April 1 there were in blast 191 furnaces with a capacity of 70,591 tons a day, against 176 active on March 1, with a capacity of 63,033 tons a day. The present rate of production is the highest since April, 1914. It should be borne in mind, however, that even these figures are far below normal, the industry having been operating at much less than capacity for many months.

### STILL EXPORTS LESS

"Judging by reports in the daily press, we have been doing a tremendous business in the exportation of iron and steel products to the countries now engaged in war, yet an examination of the statistics serves to prick a most deceptive bubble. According to reports of the Department of Commerce, the exports of iron and steel products, which are recorded in tons, amounted, for November, December and January last, to 397,359 tons, or at the rate of 1,589,000 tons a year. Yet in 1913 the total was 2,730,483 tons and in 1912 it was 2,947,596 tons. Bear in mind also that during the past twelve months the domestic demand has been very small—in some branches almost nothing.

"I recently had occasion to compile some statistics with regard to the exports

of machinery for the first eight months of the current fiscal year. Although I am fairly familiar with the industry, I had been somewhat impressed by the reports of enormous exportations of machinery, presumably for the equipment of foreign plants engaged in the production of munition of war and for other purposes. I was surprised to discover, however, that the total exports of machinery of all kinds for the eight months ended February, 1915, were valued at only \$52,929,000, as compared with \$77,327,000 for the corresponding months of 1914, a loss of 33 per cent. Only one important item in the entire list, namely, metal working machinery, showed an increase, the gain being about \$1,000,000. It is clear that the exportation of a considerable quantity of machine tools has been so exaggerated as to give the impression that American manufacturers of machinery can hardly supply their foreign orders. It is a highly significant fact in this connection that the domestic demand for metal working machinery is at a very low ebb and that practically nobody is in the market except a few manufacturers who have war orders.

#### MANY IDLE CARS

"A very reliable index of the commerce of the country is the extent to which the rolling stock of the railroads is actually in use. Current reports regarding the movement of merchandise of all kinds, and especially that en route to the seaboard, would give the impression that the country of late has experienced a marked revival, yet the American Railway Association reports that on April 1 there were 313,073 idle cars, or only 8,674 less than on March 1, when the war surplus set a high record for many months past.

"Of course, existing conditions are ripe for such demonstrations as have recently occurred in the New York stock market. Under the manipulation of professional traders the stocks of a number of corporations have been sent skyward with little reference to their intrinsic value or dividend prospects, except that the concerns were said to have received large war orders. Of course, there were thousands of amateur speculators and

a few real investors who followed the professional lead and assisted in boosting prices. In the press reports of this movement great prominence was given to the prosperity propaganda of the administration at Washington, which was utilized to give a roseate hue to the entire commercial future of the country. There can be no doubt that a number of corporations whose stocks have recently been heavily advanced will make considerable money out of their war orders, but these profits by no means justify the prices reached in Wall Street's professional 'ballooning' and, of course, the war cannot last forever. It is suggestive of the methods of professional speculators that while the stocks of certain corporations have been marked up because of prospective profits on war orders, many others have been advanced because of 'reliable indications of early peace.'

#### EXAGGERATION DENOUNCED

"It may be said that these artificial booms are better than panics or periods of depression. This may be admitted, but no movement can have a wholesome effect upon the commerce and industry of the country which is based upon misrepresentation or deception, or which depends for its success upon the stimulation of the gambling instinct latent in so many minds. Confidence is slowly returning, but conservatism is needed everywhere. The European war will furnish profits for a few American manufacturers, but the prosperity of our industries as a whole must depend upon the domestic demand which, although now showing signs of improvement, should not be overestimated. No healthful growth can be based on exaggeration."

#### DR. SMITH LECTURES ON TOPOGRAPHICAL MAP MAKING

Dr. George Otis Smith, director of the United States Geological Survey, delivered an illustrated lecture before the Home Club in Washington recently. He brought out the methods of making topographical maps. Many interesting features in the life of field parties were shown.

## RITTMAN PROCESSES ARE BEING TRIED OUT ON COMMERCIAL SCALE

**Aetna Explosives Company Expending \$200,000 in Producing Toluol and Benzol  
by New Method—Secretary of the Interior, as Trustee for Public, Takes  
Out Patents—Question Comes up as to Special Rewards to  
Government Employees Who Make Discoveries**

Work preparatory to trying out the Rittman process of obtaining toluol and benzol has gone ahead steadily during the last month. The Aetna Explosives Company has turned over \$200,000 to the Bureau of Mines to make possible the manufacture of toluol and benzol on a commercial scale. This work is being done at Pittsburgh.

Negotiations are proceeding with several refiners for the production of gasoline on a commercial scale.

### PATENTS BEING TAKEN OUT

Patents covering the Rittman processes are being taken out by the Secretary of the Interior, as trustee for the public. These patents cover the apparatus used in securing these products. It is necessary to take these steps in order to prevent private persons from taking out patents, which would make possible the collection of arbitrary sums before the public could enjoy the benefits of the discoveries. It has been found especially necessary to guard the apparatus used by Dr. Rittman. If patents could be secured by unscrupulous persons on certain of the apparatus employed by Dr. Rittman, they would be in a position to extort whatever toll they wished before the benefits of the discoveries could be given to the people.

In connection with Dr. Rittman's work the question has arisen whether a Government employe, making an important discovery, should be allowed any special reward. There seems to be a lack of a definite policy along this line. Some hold that an employe should receive substantial reward when accomplishing something of unusual importance. Others claim that the Government is entitled to all products of their labor.

### QUESTIONABLE RESIGNATIONS

There are any number of cases on record where Government employes have resigned and shortly thereafter brought out important results of work along the same lines that they were handling in the service. It is suspected, in some of these cases, that the actual discovery was made while on the Government's pay roll. Rather than turn in all the results of his work, the employe was not able to resist the temptation of great financial reward, it is suspected. It is acknowledged by most Government officials that it requires a high idea of honor for an employe, on a \$2,500 salary, for instance, to turn over, without reward, a discovery or invention which easily could be turned to his own financial advantage.

On the other hand, it is contended that the Government is employing hundreds whose work results in little practical advantage. Unless the Government is to profit by the successes of the few who really achieve something of marked importance, the public is being saddled with a heavy expenditure, with little hope of return. Attention is called to the fact that privately owned corporations who employ scientists keep a very close check on their work. Each day's developments are so arranged as to become the property of several men. This policy gives additional assurance to the company that they will be the beneficiaries of any results which may be obtained from investigation in their laboratories.

### MANNING HUNTS PRECEDENT

Van H. Manning, the acting director of the Bureau of Mines, is giving the study of this very question his personal attention. He is investigating precedents in all bureaus of the Government where

scientific work is carried on. As it stands at present, however, Dr. Rittman has no assurance of receiving more than his regular salary of \$3,000 per year. Mr. Manning states that Dr. Rittman's technical paper, which will go into detail as to his processes, probably will be ready for publication soon. He believes that this will do much to satisfy many of the doubting "Thomases" among technical men. There has been doubt expressed in many quarters as to the value of Dr. Rittman's discoveries.

With reference to the work being done on the Rittman processes, Mr. Manning has given out the following information:

#### MANNING'S STATEMENT

"The Rittman processes have as yet only been developed on a laboratory scale and it remains to establish their practicability in the industry. You will unquestionably appreciate the fact that, in the development of any process, certain equipment and ideas are involved which it is essential to have patented along with the basic idea itself in order to fully protect the process. Consequently if the development of these processes were left to private initiative alone, private interests would be able to patent this equipment and further ideas, to their own exclusive benefit, whereas if the Government participates in the development, these will all be given to the public along with the parent invention itself.

"It is for this reason that the department has decided not to give out any further information concerning the details of the process until complete information can be furnished concerning the details of a commercial plant construction and methods of operation on a scale of commercial magnitude.

"The benzol process is being developed in cooperation with the Aetna Explosives Company, Incorporated, a corporation organized under the laws of New York, having its principal office at No. 2 Rector Street, New York City. The Aetna Company has agreed to expend not less than \$200,000 in the development of the process. This work will be carried on in the city of Pittsburgh, in a plant which has been obtained for this purpose by the

company in question. The plant referred to was formerly operated by McClinck & Irvine, and is located at the junction of the Pennsylvania and Baltimore and Ohio railroads, just beyond the new Carnegie Technical Institute buildings.

"The cooperation is to come to an end as soon as this bureau is satisfied that a sufficient number of tests on an enlarged scale have been conducted to determine the commercial practicability of the benzol process. The products derived are, of course, to be the property of the Aetna Company, and this bureau is not aware what arrangements have been made by such company for the use or disposition of the products.

"Patents have been applied for on the Rittman processes, but the bureau is not prepared at this time to publish the specifications. These patents will take their regular course in the Patent Office.

"It is planned to make a similar arrangement for the development of the gasoline."

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#### LITTLE PANAMA MACHINERY TO BE TAKEN TO ALASKA

Some seem to have lost sight of the act of Congress which provides that no charge is to be made for such of the Panama Canal machinery as may be found serviceable on the Alaskan railway. Widely circulated stories in the daily press have told of heavy purchases of canal machinery for the use of the Alaskan Commission. The truth of the matter is that H. P. Warren, an engineer representing the Alaskan Railway Commission, has visited the Canal Zone for the purpose of selecting such of the machinery not needed there as may be serviceable in Alaska. It is certain at this time, at least, that no great amount of machinery will be transferred from the Isthmus to the northern peninsula.

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#### ALASKAN COPPER DEPOSITS SUBJECT OF NEW REPORT

A report on the copper districts of the Katchikan district, in southeastern Alaska, will be published by the Geological Survey in the near future.

## PROTESTS TO STATE DEPARTMENT DWINDLE AS COPPER EXPORTS NEAR NORMAL

**Agents of Allies Along German Frontier Fail to Discover Reexportations of Red Metal—Shipments to Neutral Countries Moving With Almost Accustomed Regularity—Cargoes Unloaded at Gibraltar Said to Have Been Sold**

State Department officials, who are handling questions arising from the exportation of copper, declare that protests practically have ceased. From this, it is judged that copper exporters of the country are satisfied that no concession can be expected which will permit trading with Germany, Austria or Turkey.

It is the opinion at the State Department that "good enough" should be let alone. Shipments to neutral countries are moving with little interruption. Some few cargoes are being delayed, awaiting further investigation as to the consignee, but shipments to legitimate dealers in neutral countries are going forward with a minimum of delay.

### NO REEXPORTATIONS

So far as the State Department has been advised, no reexportation of copper from neutrals into belligerent territory has been discovered by the allies. It is known that careful watch is being kept on shipments made across the frontiers of neutral countries. It is thought that the allies have agents in each place where there is an interchange of traffic along the frontier of the Scandinavian countries, as well as along the Dutch and Swiss borders. While it is understood that the neutral countries bordering on Germany are chafing under the restraints placed upon their commerce, they also realize that they are in a measure at the mercy of the allies. In order to be insured supplies for their domestic use, the reexportation of contraband brought from the United States is being discouraged.

It is reported that negotiations have been closed for the purchase of the copper unloaded at Gibraltar early in the war. It is said that the English Gov-

ernment has paid the market price for this copper, as well as allowing liberal payment for other losses occasioned. No advice to this effect, however, have been received by the State Department.

### EXPORTS INCREASE

Exports continue to increase, and there is evidence that business is better at this time than any dared to hope a few months ago.

Exports of copper, during the week ending March 20, the latest figures available, show that 15,628,736 pounds were exported during the week. France is the heaviest buyer, with Sweden in second place; England and Italy occupy third and fourth places, respectively.

### OPERATORS OF MINES CANNOT AFFORD TO BE OUT OF TOUCH WITH EVENTS IN WASHINGTON

*In covering in detail the work affecting mining being done in the government departments THE MINING CONGRESS JOURNAL is giving its readers information that is covered by no other publication. A vast amount of work of interest to mine operators is in progress in the National Capital. Many activities having a direct bearing on mining always are in evidence in Washington. No operator of a mine, regardless of the substance mined, can afford to be out of touch with these activities. A simple method of keeping abreast with news of importance to mine operators is to read each issue of THE MINING CONGRESS JOURNAL.*



### **ARIZONA RESOURCES NEED PUBLICITY, SAYS C. F. WILLIS**

**Director of Arizona Bureau of Mines Talks on  
Work Before Arizona Chapter of  
Mining Congress**

Arizona is in dire need of publicity, according to Charles F. Willis, director of the State's bureau of mines. He not only pleads for a greater effort to diffuse knowledge of the mining resources of the State but declares it to be the duty of every business man in Arizona to join the State Chapter of the American Mining Congress.

In a statement given out in Arizona recently, Mr. Willis says:

"An excellent start has been made in the development and organization of the Arizona Chapter of the American Mining Congress. Within the past month two local sections have been formed, the Gila County and the Pima County sections, and it is expected that the next month will see several new sections organized for the purpose of giving the right sort of publicity to the mineral resources of the State. For many years publicity in mining has not been given the attention that it deserves, for the reason that the operations of the large corporations, through their perfect management and ability to control large capital, were successful without publicity. But the small operator and the prospector have needed assistance. False statements regarding investments have served to keep hundreds of thousands of dollars out of the mining States of the West. It is the endeavor of the Mining Congress, through its State and local sections, to correct this situation, and bring together in harmony every material industry of the State.

"All business depends upon publicity for its greatest success. This applies to everything from running a peanut stand to marketing a mine, and operating it, too, for that matter. Publicity may mean advertising in the newspapers or otherwise; the means differ with different kinds of business, but the one object is sought—to get the attention of the public.

"No doubt one of the reasons that mining has not prospered as well as it might

have in the last few years is that insufficient publicity has been granted to the industry. This does not apply to the large, well established operations as much as to the smaller. The mines that have become successful producers and dividend payers do not need publicity to the extent that the smaller, undeveloped properties do, yet publicity for the big fellows helps their smaller neighbors. The success of a district is bound up in the success of all the mines in it, large or small. The success of the mines strongly affects the property of all of the other business activities in the district. It behooves them all, then, to boost the basic industry—mining.

"The business men of all classes in mining communities can best benefit their own business by organizing and boosting mining. The truth has been recognized in some mining sections, and commercial clubs have sprung up which are giving considerable attention to promoting the mining activity of the districts around them by giving publicity to the mines and prospects. There is need for greater extension of this publicity aided by local and other papers. Help the struggling mines and prospects. They are the ones that need your help and your enthusiastic moral support.

Every business man in Arizona who has the welfare of the State at heart should be a member of the Arizona Chapter of the American Mining Congress."

### **LAST OF GEOLOGICAL SURVEY EXHIBIT SHIPPED**

**Dr. Ashley Receives Many Compliments on  
His Work for Panama-Pacific  
Exposition**

The last of the Geological Survey exhibit for the Panama-Pacific Exposition left Washington the early part of the month. The Mount Lassen volcano exhibit was the last to be completed. Dr. George H. Ashley, the Survey's administrative geologist, who had charge of the preparation of the Panama-Pacific exhibit, is the recipient of much commendation for the comprehensive display, illustrating the work of the bureau.



## DECREE OF CARRANZA MORE THAN DOUBLES MEXICAN MINING TAX

**Export Duty Levied on Gold, Silver, Copper, Lead and Zinc—Stamps to the  
Value of Ten Pesos for each Pertenencia Must be  
Affixed to Titles—Other Charges**

Persons owning mining properties in that portion of Mexico controlled by Carranza have been forced to pay greatly increased taxes. In a decree, effective March 3, Mr. Carranza orders several radical changes in the mining laws.

A copy of the decree, furnished by the Mexican Embassy in this city, reads as follows:

Articles 2, 5, 9 and 10 of the law of March 25, 1915, concerning the stamp and mining privilege taxes are modified and augmented in the following manner:

Ores, produced in the Republic or those which come from foreign countries, are subject to the stamp tax law, without any exceptions, except those set forth in the law itself. The tax in the future will cover:

Metals exported in the form of ore, earth, cyanides, sulphides, smelter residue, or in any other form in which they may be combined with substances which, strictly speaking, are not metals, will pay as follows: Gold, at the rate of 110 pesos per kilogramme; silver, at the rate of 2.60 pesos per kilogramme; copper, at the rate of 3 1-2 centavos per kilogramme; lead, at the rate of 6 centavos per kilogramme; zinc, at the rate of 5 centavos per kilogramme.

Metals, so treated in the country as not to be combined with other metals, will enjoy a discount of 20 per cent. from the foregoing taxes without regard to value.

The copper content of any other mineral will not be taxed if it forms less than 3 per cent. of the total. The same will apply to lead if the occurrence is less than 10 per cent., and to zinc when it is less than 15 per cent.

Stamps, to the value of 10 pesos for each pertenencia, must be affixed to each title granted. This is without regard to the substances to be mined.

The annual tax on mining properties shall be as follows:

A charge of 12 pesos annually will be made for each pertenencia (4 pesos each four months), regardless of the minerals being exploited.

If the number of pertenencias of a mining property, or of different mining properties, belonging to the same owner and located in the same mining district, exceed 10 pertenencias, they shall pay 12 pesos for the first ten pertenencias; for those exceeding 10, and not exceeding 20 pertenencias, 15 pesos; for those exceeding 20, but not exceeding fifty pertenencias, 18 pesos; for 51 pertenencias and over, it shall be at the rate of 24 pesos.

All delayed payments on mining properties may be made up to June 30, 1915, and payments must be made in Mexican gold. The decree became effective March 3.

### VILLA ISSUES ORDER

Even more drastic changes in the mining law have been made by Francisco Villa, who is in charge of the revolution in the North. The northern chieftain maintains that all mines must be kept in operation. He specifies that no mines may be left idle for more than sixty days. He holds that the voluntary suspension of mine exploitation, without a justified cause is detrimental to the nation, inasmuch as there is withdrawn from commercial activities means of necessary wealth and likewise the public treasury is depleted by the nonpayments of taxes which should accrue when the properties are exploited permanently.

Maintenance of watchmen on the property is not considered as active mining. Holding of large properties is made practically impossible by a provision, the Villa order which specifies that one pertenencia

out of each five must be exploited actively. Unless all owners of properties begin active work within 120 days, they are to forfeit their holdings. No individual in the future may denounce more than fifteen contiguous pertenencias and no company or corporation may denounce more than 150 pertenencias in the same mining district, except in the event that the Secretary of Fomento after having received a report from an expert, increases this number where it is absolutely necessary, by reason of the nature of the ore or the ground to be explored.

#### MUST ADVISE DEPARTMENT

The mining agents in each district are charged with the duty of keeping themselves and the department advised. It is practically certain that the United States will come to the rescue of any of its citizens who may be deprived of their properties due to this order.

It is conceded unanimously here that the Dictator in Northern Mexico has no right to assume powers that permit of the changing of fundamental property laws. It is well known that it is impossible for all holders of mining properties to open work at this time. Communication is very uncertain and supplies are prohibitive in their costs. It is certain that there will be no general attempt to comply with the Villa orders.

#### NEW MAP OF PORT VALDEZ DISTRICT IS NEARLY READY

A new map of the Port Valdez Mining District, of Alaska, will be out May 15, it is announced at the Geological Survey. The map will be a detailed one, and will facilitate greatly mining operations in that district.

In order to issue THE MINING CONGRESS JOURNAL during the early part of the month, rather than the latter, the April and May numbers are combined. The June number will be out the last week in May and should reach all subscribers by June 1.

#### WATER-POWER SOURCES ALONG COLORADO TO BE SHOWN

**Report, To Be Published Soon, Covers Drainage Basin From Wyoming to Gulf of California**

Mining men from Wyoming to the Gulf of California will be interested in a special report now being compiled by the Water Resource branch of the Geological Survey. The report will continue the results of studies of the water resources of the Colorado River drainage basin. It is the first report ever made of that area. Miners are interested in information that will be contained in this report, principally due to the studies made of water-power resources. It also will be very valuable to those interested in irrigation. The entire Colorado Valley, covering portions of the States of Wyoming, Colorado, Utah, Arizona, New Mexico and California, will be included.

#### NATIONAL RADIUM INSTITUTE MAKES SECOND SHIPMENT

**Inability To Secure Apparatus From Germany Handicaps Crystallization Work**

Three hundred milligrams of radium have been delivered from the National Radium Institute, being operated by the Bureau of Mines in Denver. This is the second delivery of radium from the plant. The radium has a market value of \$19,000. Owing to the impossibility to secure special apparatus needed for the crystallization of radium, that part of the operation has not kept pace with the extraction from the ore. It may be impossible to get this apparatus until German trade is reestablished.

#### KENAI PENINSULA RESOURCES SET FORTH IN REPORT

The geology and mineral resources of the Kenai Peninsula of Alaska, which has been prepared by the United States Geological Survey, probably will be ready for distribution May 1.

## WEST VIRGINIA'S WORKMEN'S COMPENSATION LAW COMMENDED HIGHLY

**Held to Be Best Statute of This Kind Ever Enacted in the United States—Commission Directing System is Given Ample Powers—Agricultural and Domestic Service Exempted**

According to competent authorities, West Virginia has a workmen's compensation law which is superior to the laws adopted by other States. Some of the salient features of the bill are:

The office of State compensation commissioner is created. He shall be appointed by the Governor before May 31, 1915. His term of office is six years. A bond of \$10,000 is required with the faithful performance of his duty. The commissioner may be removed by the Governor for specified causes. The salary of the commissioner is \$6,000 annually. The commissioner may hold hearings within the State. All persons, firms, associations and corporations regularly employing other persons for profit or for the purpose of carrying on any form of industry or business in this State are employers within the meaning of the act. All persons in the service of employers for the purpose of carrying on the industry or business in which they are engaged are employees within the meaning of the act. The act does not apply to domestic or agricultural service, traveling salesmen, to employees of any employer who are employed wholly without the State. No members of a firm, officer, manager, superintendent or assistants or their deputies are deemed employees by the act.

### INDUSTRIES CLASSIFIED

Industries are divided into classes. Coal mines, including their tipples, power, light, heating and ventilating plants, tramways, private tracks and sidings, and accessory and auxiliary plants working in or with by-products form one of the classes. Quarries, stone crushers, gravel pits, mines other than coal mines, and working with asphalt, cement, stone or other building material not otherwise

specified, power propelled ferries, sand diggers and other water craft form another class.

The risk of the different classes is determined from the record of the employers as shown upon the books of the commissioner. The commissioner will fix the rate of premium for each class according to the risk. Ten per cent. of all that is paid into the workmen's compensation fund shall be set aside for the creation of a surplus fund until such surplus shall amount to \$100,000, after which time 5 per cent. of all money paid into the fund shall be credited to the surplus until such time as in the judgment of the commissioner such surplus shall be sufficiently large to cover the catastrophe hazard and all unanticipated losses.

### ANNUAL READJUSTMENT

On July 1, 1916, and annually thereafter, a readjustment of rates will be made by each of the several classes in accordance with the experience of the commissioner in the administration of the law. Any employer who shall elect to pay into the workmen's compensation fund the premiums provided by this act shall not be liable to respond in damages at common law or by statute for the injuries or death of any employee during any period in which such employee shall not be in default in the payment of premiums. Each employer electing to pay the premiums must post notices in conspicuous places about his place of business stating that he has made such election. They shall constitute sufficient notice to all employees.

Each employer is authorized to deduct from the pay of his employees for each month 10 per cent. of the premium paid or to be paid for such month in propor-

tion to the pay received by them respectively for the month. Failure to pay all premiums and penalties for two succeeding months will deprive the employer of the benefits afforded by the act and shall terminate the election of the delinquent employer to pay into the workmen's compensation fund as herein provided. Each employer is required to deposit at all times an amount at least equal to the premiums for the last two preceding months.

#### MEDICAL TREATMENT

Medical, surgical and hospital treatment may be extended up to \$150. In some cases of permanent disability this may be extended to \$300. No compensation will be paid when injury or death results from a self-inflicted injury, willful misconduct, disobedience to rules and regulations approved by the commissioner, or caused by the intoxication of the employee. Every injury or death resulting to an employee from the deliberate intention of his employer, the dependents shall have the privilege of action against the employer for any excess of damages over the amount received under the act. In case death ensues from injury within a period of twenty-six weeks funeral expenses not to exceed \$75 may be paid from the fund. If the period of disability does not last longer than one week, no reward will be allowed.

Where compensation is due an employee, under the provision of the act, payment is to be made according to the schedule, which is in part as follows:

If the injury causes temporary total disability, the employee shall receive during the continuance thereof 50 per cent. of his average weekly earnings, not to exceed a maximum of \$10 per week, nor to be less than a minimum of \$5 per week.

If the injury causes temporary partial disability, the employee shall receive 50 per cent. of the weekly loss in wages, not to exceed a maximum of \$10 per week.

The award shall continue not to exceed twenty-six weeks in case of temporary disability. Some few exceptions are made which will allow payments to continue for fifty-two weeks.

If the accident causes permanent disability, the percentage of disability to total disability shall be determined and the award computed and allowed as follows:

For a 10 per cent. disability, 50 per cent. of the average weekly earnings for thirty weeks.

For a 20 per cent. disability, 50 per cent. of the average weekly earnings for sixty weeks.

For a 30 per cent. disability, 50 per cent. of the weekly earnings for a period of ninety weeks.

For a 40 per cent. disability, 50 per cent. of the average weekly earnings for 120 weeks.

For a 50 per cent. disability, 50 per cent. of the weekly earnings for a period of 150 weeks.

For a 60 per cent. disability, 50 per cent. of the average weekly earnings for 180 weeks.

For a 70 per cent. disability, 50 per cent. of the weekly earnings for a period of 210 weeks.

For a disability exceeding 70 per cent. and less than 85 per cent., 40 per cent. of the average weekly earnings during the remainder of life.

For a disability from 85 to 100 per cent., 50 per cent. of the average earnings during the remainder of life.

If a deceased employee be under the age of 21 and unmarried and leave a dependent father or mother, the father, or if there be no father, the mother, shall be entitled to a payment of 50 per cent. of the average weekly wages, not to exceed a maximum of \$6.00 a week, to continue until the employee would have been 21 years of age or until the death of the dependent if it occurs before the employee would have been 21 years of age.

If the deceased employee leave a widow or invalid widower, the payment shall be \$20 per month until the death or remarriage of such widow or widower, and in addition \$5.00 per month for each child under the age at which he or she may be lawfully employed in any industry to be paid until such child reaches that age. It is provided that the total payment shall not exceed \$35 per month.

If the deceased employee be a widow or widower and leave a child or children

under 15 years the payment shall be \$10 per month to each child until the age of 15. The total payment in any case is not to exceed \$30 per month.

No sum shall be paid to a widow or widower who shall have been living separate or have been abandoned by the employe for twelve months next preceding the injury, and who shall not have been supported by him or her during such time.

Payments may be made in such periodical installments as may seem best to the commissioner in each case.

The commissioner may make necessary expenditures to obtain statistical and other information to establish the classes provided for. Any person, firm or corporation knowingly failing to make any report or perform any duty required by the commissioner within the time specified shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than \$2,500. False reports are to be punished under laws governing perjury.

Any person who shall knowingly secure or attempt to secure larger compensation, or compensation for a longer term than he is entitled to, shall be deemed guilty of a misdemeanor and upon conviction shall be fined not to exceed \$500 or imprisonment not exceeding twelve months or both, and shall cease to receive any compensation from the fund. Employers subject to this act who are of sufficient financial responsibility to insure the payment of compensation, or employers of such financial responsibility who maintain their own benefit funds or systems of compensation to which their employes are not required or permitted to contribute, or such employers as shall furnish bond or other security to insure such payments may elect to pay individually and directly or from such benefit funds.

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#### Working Night Shifts

In order to take advantage of the present price of zinc, a number of Utah mines are working night shifts for the first time in their history.

#### ANACONDA COMPANY ORDERS

##### ALL SAFETY DEVICES USED

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#### Foremen Ordered To Stop All Practices That Entail Danger in Any Form

An idea of the extent to which the Anaconda Copper Mining Company is going into the matter of protection to workmen is shown by the following order issued to its superintendents and foreman. The order is from C. F. Kelley, the vice-president of the company, and reads as follows:

"The Anaconda Copper Mining Company expects all superintendents and foremen to make every effort to prevent injury to employes. All practices which are likely to be the cause of an accident must be stopped. Much good can be accomplished by designing new construction and machinery with all practical safeguards, and you should take steps to see that this is done. Help to make and keep the mines and plants safe.

"Expenditures necessary for such purposes will be authorized. Nothing which will add to the protection of the workmen should be neglected. The safety and welfare of the workmen is of the greatest concern."

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#### Arrange Field Meet Events

Events of the field meet of the Bureau of Mines and the American Mine Safety Association, to be held in San Francisco, have been arranged. Mine rescue demonstration, first aid demonstration and the coal dust explosion will be on the program for September 23. First aid, rescue and rock drilling contests will take place September 24. The award of prizes and souvenirs will be made in Convention Hall the night of September 24.

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#### Issue New Catalogue

A new catalogue of 250 pages has been issued by Jenkins Brothers. It is of convenient size for the pocket and is filled with interesting data and cuts of their valves, mine packings and the other well-known specialties of this firm.





MULTIPLE-TENEMENT DWELLING OF CONCRETE CONSTRUCTION. FIVE ROOMS EACH; ALL MODERN CONVENIENCES

#### **ADVANTAGES OF CONCRETE HOUSES ARE POINTED OUT**

**Recommended by Bureau of Mines Because  
They Are Durable, As Well As Fire  
and Vermin Proof**

Since its incipency the Bureau of Mines has paid close attention to housing conditions in mining camps. The public health service has cooperated in this work. A paper by Joseph H. White has just been issued by the Bureau. It is entitled "Houses for Mining Towns." The purpose of the bulletin, the Bureau of Mines states, is to supply facts on the building of well-ventilated, well-lighted, warm, attractive and economical houses for miners.

Mr. White goes into the question in much detail. He takes up the matter of the importance of the town-site, the advantages of establishing towns near the place of working and the possible advantages of building a town at some distance from the mine. Streets, gutters, sidewalks and alleys come in for full discussion.

Considerable space is given to the ma-

terial of which it is best to construct houses in mining camps. Houses made of poured concrete are mentioned favorably, due to the fact that they are very durable, fireproof, and, to a large extent, vermin proof. \*Houses, constructed in this manner have been found to be very satisfactory at Gary, Ind., where they are being used extensively. As circumstances are such in most mining camps that frame houses must be used, more attention is given this class of construction than any other.

A variety of designs is urged. Great stress is put upon the need of a maximum amount of sunlight in each dwelling. The use of electricity for lighting is recommended strongly. In the long run it will be more economical, it is held.

Some of the other topics discussed in the bulletin are fireplaces, stoves, chimneys and flues; interior and exterior finish; foundation, framework, roof, the yard and its appurtenances, and water and wastes.

The necessity of preventing mosquito breeding is emphasized. United and continuous efforts by employers and employees are necessary to eradicate this dangerous pest, it is pointed out.



## DEPARTMENT OF TRANSPORTATION IS URGED BY RAILROAD HEAD

**Interstate Commerce Commission Should Be Supplanted by Division of Government  
with Representation in Cabinet, New York, New Haven and Hartford  
President Declares—Latest Traffic Developments**

"I believe it would be well to have a department of transportation, with a secretary of transportation at the head of it, who should be a member of the Cabinet. Such a man would of necessity have to champion somewhat the rights and privileges of the transportation business, as the Secretaries of the Treasury, Commerce and Labor speak for their particular subjects." This is an extract from an address made recently in Norwich, Conn., by President Elliott, of the New York, New Haven and Hartford Railroad.

President Elliott's remarks have been the basis of much comment in Washington. It is realized here that the railroad problem is one of the greatest which confronts the Government today.

It would be unfair to say that the Interstate Commerce Commission has not been a success. At the same time, there are many features of the transportation question which seem to baffle the commission. President Elliott suggests the abolishing of the commission, but replacing it with a department of the Government which would greatly increase power of action and would give a broader base for the regulation of railroads.

The very fact that the Interstate Commerce Commission is proving inadequate to handle some of the transportation problems of the country is being seized upon as an argument by those favoring Government ownership of public utilities. They claim that a department of the Government would soon find that the task of regulating transportation is beyond it, so long as the transportation lines remain in private hands.

Regardless of the wisdom of Government ownership, it is a matter of fact

that its advocates are increasing in number and are being drawn from the ranks of capable men.

### **DIMINISHES SELLING ZONE**

**Increase of Western Rates Will Put Some  
Producers at Disadvantage**

With reference to increasing rates on Western roads an interesting angle of the effect of the traffic situation on the coal mining industry in the Middle West is brought out by the leading editorial in the *Black Diamond* of April 3. The editorial reads as follows:

"The railroads of the West have been pleading lately for an increase in rates. They say they need the money. Perhaps they do.

"They are wondering why everyone does not rise to second their request. They wonder why the appeals made by high officials within the last five or ten years have made no more impressions. These are big men. What they say is sound. Why, then, the indifference?

"A case in point will prove that railway action does not justify public confidence. The one statement most often made by coal men is that competition between Eastern and Western producers in the Northwestern trade is keen.

"Eastern coal moves into the Northwest from the docks mainly by the Hill group of railroads, the St. Paul and the North Western.

"Western coal from Indiana and Illinois is moved into the Northwest by all rail. None of it originates upon any line owned by the Hill interests with the exception of a relatively small tonnage on the Burlington. Practically none of it originates on the North Western. But very little of it moves over the St. Paul.

"Thus the originating carriers on dock coal are entirely different from the originating carriers on Illinois and Indiana coal.

"To retain the status quo established by years of competition coal men have insisted that if there is a rate change on one group of carriers, there should be a similar rate change on the other. To lower one group rate or to advance another group rate would throw one or the other coal field out of the Northwest. When the market is often swung by a difference of 5 cents a ton, a change of rates may mean a change in that section's source of supply of coal.

"The railways are not ignorant of this situation because it has been called to their attention literally hundreds of times in ten years. Regardless of that fact, they have filed new tariffs in which a 10-cent-a-ton advance is imposed on coal coming from Indiana and Illinois, while no advance is named on coal from the docks.

"Naturally, the Western operators resent the suggestion and are wondering by what legerdemain the Northwestern roads convinced the Central Western roads that the latter should advance their rates, while the former should charge the same old figures.

"It begins to look as though the Hill roads and the others had 'put one over' on the Illinois and Indiana lines. Something has blinded the latter officials to the apparent effect of the change. The situation is hard to understand since the Western lines must know that the proposed change would lose their operators business and therefore would lose them traffic.

"The statement has been made many times that the Illinois and Indiana operators will withdraw any objection to an increase in rates, provided it is horizontal. They are forced, however, to fight the proposed advance, even when they believe that the railroads ought to have it, merely because it will amount to giving away a certain part of their selling zone."

#### **Reparation Awards Announced.**

Reparation has been allowed by the Commission in the following cases of interest to miners: The Consolidated

Coal Company versus the Louisville & Nashville Railroad; Mineral Fuel Company versus Lexington & Eastern Railway Company; T. E. Wilson versus Southern Pacific Railway; Warner-Youghiogeny Coal Company versus Pittsburgh & Lake Erie Railroad Company; Wilkes-Barre Anthracite Coal Company versus Lehigh Valley Railroad Company; Witherbee, Sherman & Company versus Delaware & Hudson Company; Devoy & Kuhn Coal and Coke Company versus Chicago, Rock Island & Pacific; N. D. Nichols versus Northern Pacific Railway Company; Krutt & Voelker Coal Company versus Illinois Central; E. Robinowitz versus Chicago, Rock Island & Pacific.

#### **HEARINGS ANNOUNCED.**

##### **Coal Rates From Taylor, Pa., Subject of Hearing in Scranton, April 22.**

Hearings have been arranged by the Commission as follows: April 22, at Scranton, Pa., before Examiner Bell the matter of coal rates from Taylor, Pa., and other points to Tidewater and New York points. At Baltimore, before Examiner Waters, the Wright Coal & Coke Company versus the Hagerstown and Frederick Railway, and the case of the Atlas Coal & Coke Company versus the Pennsylvania Railway. May 4, at New York, before Examiner Fleming the New Jersey Zinc Company versus the Central Railway of New Jersey. May 5, at Washington, oral argument before the Commission in the matter of coal rates from Oak Hills, Colo. May 6, in Washington, oral argument of the case of the Union Sulphur Company versus the Baltimore & Ohio Railway. May 10, at Chicago, before Examiner Bell, the matter of ore and smelter products rates from Salt Lake City, Utah, and other points in Utah, Nevada and California to Eastern destinations. This case is known as I. & S. 578.

#### **Petroleum Rates Advanced.**

In the matter of rates on petroleum and its products, in car loads, from Alton and Wood River, Ill., to all points mentioned in tariff I. C. C. No. A-50,

basing on Cairo, Ill., the carriers have been authorized to establish rates to correspond to the advances made by the Central Freight Association lines under the findings of the Commission in the 5 per cent. rate case without observing the long and short haul clause of the fourth section of the act to regulate commerce.

#### OPPOSE RATE CLAIMS

##### **Carriers Claim Union Sulphur Company is Virtual Monopoly**

Spanish pyrites are replacing to some extent crude sulphur in the manufacture of paper, according to information contained in a brief submitted by the carriers in the case of the Union Sulphur Company versus the Baltimore & Ohio Railroad Company. The Union Sulphur Company objects to an increase in rates from the Atlantic seaboard to various interior destinations. Testimony taken in the case shows that the Union Sulphur Company has a virtual monopoly on its products in the United States. In the manufacture of sulphuric acid iron pyrites from Spain take a much lower rate. This is due to the fact that pyrites can be loaded in open equipment and may be moved at the convenience of the carriers, whereas sulphur must be handled in tight box-car equipment. The carriers maintain that pyrites is a much inferior product and naturally is entitled to a lower freight rate. Crude sulphur, they claim, is well able to hold its own and is not prejudiced to existing rates.

The carriers go even further and intimate that the Union Sulphur Company is in the commanding position of a virtual monopoly and that it desires to save additional revenue for the operation of its mines and its own vessels which carry the sulphur to North Atlantic ports. The sulphur is mined in Louisiana, 69 miles from the nearest port.

The manner in which the Union Sulphur Company obtained this commanding position in regard to sulphur is an interesting story in itself. Formerly the greatest bulk of the world's sulphur was furnished by Sicily. While it has been known for more than a hundred

years that extensive beds of sulphur exist along the Gulf Coast of the United States it never has been possible to mine them, owing to the fact that the sulphur beds which were at a depth of 500 feet were covered with quick sand. This made the sinking of shafts impossible.

During the early days in Louisiana a number of strenuous efforts were made to mine this sulphur. One French company had sections made for lining the shafts. These were brought at great expense, from France, but after many efforts and much money had been expended it was found impossible to sink the shafts even with their use.

Through the genius of Herman Frasch, a method of mining the sulphur was devised. Mr. Frasch's process provided for the introduction of steam into the sulphur deposit. When the sulphur melts it is pumped to the surface. In this manner great quantities of sulphur are mined at a minimum expense. By this process the Union Sulphur Company is in a position to command the world's market of sulphur. It is understood that the company has an agreement with the Italian Government to refrain from entering certain European territory so as not to destroy, with one fell swoop, the entire Sicilian industry.

#### COAL RATES ATTACKED

##### **Geographical Position Should Be Recognized, Meeker & Co. Claims**

An interesting contest for rates commensurate with geographical advantages is before the commission. The case is that of Henry E. Meeker versus the Erie Railroad Company. Mr. Meeker attacks the reasonableness of rates charged by the carriers for the transportation of anthracite coal, in carloads, from the Wayne Washery, at Clemo, to Tidewater, at Undercliffe, N. J. The rates charged from Clemo are the same as those applying to a much more extended district. The complainant contends that he is entitled to materially lower rates than other mines which are situated at a considerable distance farther from Tidewater. He also brings out the fact

that his property is situated on the eastern slope of the mountains, while other properties, taking the same rate, are so located that their product must be hauled over the summit of the ridge. He claims that he is entitled to a more reasonable rate, owing to the favorable geographical location of his washery.

In a brief filed with the Interstate Commerce Commission recently, arguments supporting his contention were presented by Mr. Meeker, who is the head of Meeker & Company, with main offices in New York. It is asked that the commission determines just and reasonable rates which should be charged from the Clemo to the coast.

### REGISTER FEW COMPLAINTS

#### Mine Operators Not Frequent Users of Interstate Commerce Commission

Attention has been called to the fact, at the Interstate Commerce Commission, that mine operators apparently are not greatly interested in traffic matters. Lumber manufacturers and mercantile interests submit many complaints. This is resulting in the removal of many transportation hardships.

It is believed that the fewness of complaints from mine operators is not due to any lack of cause, but rather to the fact that no great amount of attention has been given this branch of their business.

### INTEREST IN OIL CASE

#### Petroleum Rates Between Kansas and Nebraska Points Attacked

Due to the number of similar cases, much attention is being attracted by the case of the Mutual Oil Company of Kansas City, against the Atchison, Topeka and Santa Fe Railway Company. The oil company challenges the reasonableness of the rate of 26 cents for the transportation of petroleum and its products, in carload lots, from Coffeyville, Kans., to Superior, Neb., and a subsequent rate on the same products between the same points of 20½ cents. The complainant also challenges the rate of 7

cents for the transportation of the same products, in carloads, from Webber, Kans., to Superior, Neb., and also suggests that a reasonable rate for the transportation from Coffeyville to Superior would not exceed 12½ cents and that a reasonable rate from Webber to Superior should not exceed 3 cents.

It is asked that the commission fix a reasonable rate in each case. Reparation amounting to over \$4,032.94 is involved in this case. Briefs in the case have been submitted by the oil company and the carriers and an early decision is expected.

### TRAFFIC MEN TRY IN VAIN TO INTERPRET AMENDMENT

#### Cummins' Alteration in Act to Regulate Commerce Causes Perplexity—A Pennsylvania Case

Under the heading "Discovering A Law," the New York *Annalist* describes the complex situation created by the enactment during the last hours of the recent session of Congress, of the Cummins' amendment to the Act to Regulate Commerce.

As originally offered, this amendment was designed to remove the limitation upon the carriers' liability in the shipment of live stock, but as amended in the rush hours, it prohibits railroads from allowing the 10 per cent. decrease in consideration of the limitation of liability in case of loss.

Over 200 traffic men recently met in Washington with the Commission, for the purpose of arriving at some conclusion as to the exact meaning of the amendment. No general agreement was reached, there being as many different opinions as there were different speakers who discussed the amendment. It was thought by many that the effect of the amendment will be to require a 10 per cent. increase in freight rates. In practice it is not likely this will be allowed, although it is evident, if the prior rate was fair, that some additional charge is justified for the increased liability which the railroad must assume in consequence of the removal of its right to limit liability in case of loss.

Another law not enacted hurriedly but deliberately, seems also to be in the process of discovery. The State of Pennsylvania, in 1913 enacted a law levying a tax of 2 1-2 per cent. of the value of hard coal at the mines, amounting to approximately 10 cents per ton, on the anthracite production of that State. This law grew out of the unfortunate but general belief that the mining industry is able to stand any burden which it is possible to put upon it. The mine operators were forced in self-protection to advance the price of coal, although contending the law was unconstitutional.

It was estimated by the auditor general that the statute would bring into the State treasury between four and five million dollars revenue annually, which was regarded as a proper recompense for the carrying off to other States of one of the State's principal products. While the companies are contesting the case in court, they are endeavoring to have the law repealed. This situation advances additional argument for the framing of a comprehensive mine tax law, uniform in its application under like conditions.

#### **To Hear Copper Cases**

The hearing of the case of the Tennessee Copper Company versus the Southern Railway has been set for May 10. Testimony will be taken by Examiner Pugh in Washington. Several cases which the Tennessee Copper Company has against the Louisville and Nashville Railroad will be heard at the same time.

#### **Fatalities Decrease in January**

Reports made to the Bureau of Mines by State mine inspectors indicate that in all 157 men were killed in and about the coal mines in the United States during January, 1915, as compared with 203 during January, 1914.

Deducting four fatalities in January, 1914, for which there are no comparable figures for January, 1915, the figures become 157 for January, 1915, and 199 for January, 1914, or a decrease of forty-two, or about 21 per cent., in 1915 as compared with the previous year.

#### **RATE INCREASE ALLOWED**

##### **Ore and Smelter Products to Pay More Freight from Utah**

Suspension of proposed increases in rates on ore and smelter products from Salt Lake City, and other points in Utah, Nebraska and California, to Eastern destinations, has been set aside by the Commission.

#### **Ask Lower Oil Rates**

Petroleum shipped in car loads from Wyoming to Montana points should take a 50-cent rate, according to a complaint which has been submitted to the Commission by the Mutual Oil Company, of Kansas City. The defendant is the Chicago, Burlington and Quincy, and other roads. The carriers maintain that the 73-cent rate, which is being applied is reasonable.

#### **HAS LITTLE TO SAY ABOUT**

##### **GERMAN COPPER DEVELOPMENT**

Efforts to induce I. Wolf, Jr., president of the American Association of Commerce and Trade, of Berlin, to discuss the development of copper deposits in Germany and Austria, since the outbreak of the war, have proved unavailing. Mr. Wolf is in New York, doing what he can to maintain trade between the United States and Germany. He also is reticent with regard to the actual conditions surrounding German activity in the coal-tar products industry.

#### **Coal Rate Suspended**

Proposed increases in coal rates from Toluca, Ill., have been suspended until August 15 by order of the commission.

#### **Increased Coal Rates Suspended**

Increases in rates on coal from Illinois mines, which were to become effective April 5, have been suspended by the Commission until June 29.



### **HIGH PRICES LIMIT HOME CONSUMPTION OF SPELTER**

**Spectacular Increases Call Forth Special  
Bulletin by Survey**

**Unusual Demand From Europe—Zinc Re-  
sources of U. S. Can Supply Anticipated  
Needs**

Such attention has been focused on the unprecedented and spectacular rise in the price of spelter in January, February and March, that the Geological Survey has issued a special bulletin devoted to information in regard to spelter. The bulletin is by C. E. Siebenthal. A diagram, showing the average weekly price of spelter at London and St. Louis during 1913 and 1914 and for the three months of 1915 is very explicit. A list of the active zinc smelters of the United States and their capacities is given. The plants with special retorts are listed. A table shows the zinc available for spelter in the United States for 1907 to 1914, inclusive. The production of spelter in 1914 by States is compared with the production in each year since 1905. The production of secondary zinc also is given. The world's production of spelter from 1906 to 1913, inclusive, is made a portion of the report. Another item deals exhaustively with the consumption of primary spelter in the United States, 1907 to 1914. The exports during the years 1906 to 1914 are tabulated, as are the imports of zinc ore 1904 to 1914. Causes for the advance in the price of spelter are attributed entirely to the export demand for zinc for war purposes. In discussing the condition of the market the report says:

"The production of primary spelter made a substantial gain in 1914, and this, taken in conjunction with the large stocks, made available a far greater supply of primary spelter than ever before. Although the production of secondary spelter fell off markedly, nevertheless the total spelter available for consumption was the greatest in the history of the industry. Only the enormous exports of spelter for use in the war prevented a great increase in stocks. As it was,

stocks were greatly reduced from the quantities in hand at the first of the year and the midyear, and at the close of the year were only moderately large.

With respect to the future the following observations are made:

"If spelter-consuming industries in the United States enjoy prosperous conditions in 1915, so that the total spelter consumption makes its normal gain (which, however, in view of the high price of spelter and the resulting effect on domestic consumption, is scarcely probable), figured on the totals for the last six years, the total domestic spelter consumption for 1915 would approximate 397,000 tons. If to this we add a year's domestic exports at the rate shown since the beginning of the war in Europe, 180,000 tons, and a year's foreign exports at the rate during the latter half of 1914, equal to 17,000 tons, we get 594,000 tons as the possible demand for spelter. This, however, is not the maximum possible quantity to be demanded. It appears that spelter is in a highly advantageous position as far as the statistics afford evidence, and the only danger to be apprehended is that the prevalence of high prices may so limit the domestic consumption as to partly offset advantage gained from the increased foreign demand. The high price of galvanized sheets, for instance, has led some rolling mill operators to advise their customers to substitute heavier black sheets coated with paint. It further, appears that the zinc resources of the United States are amply able to satisfy any possible demand that is likely to be made upon them in the immediate future, without drawing upon the zinc tailing piles of Australia."

### **PENNSYLVANIA SHOWS BIG DECREASE IN MINE FATALITIES**

A decrease of 32 per cent. in the number of fatal accidents in the soft coal mines of Pennsylvania is shown in the report of James E. Roderick, the chief of the State Department of Mines. The number of men killed during 1914 was 413. This compares with 611 for the preceding year. The number of men employed was 195,929 and 189,909 in 1914 and 1913, respectively.

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APRIL-MAY, 1915

## EDITORIALS

### GOVERNMENT POLICY AND THE ALASKA NORTHERN

No more forceful illustration of the baneful effects of a shifting governmental policy can be found than the history of the Alaska Northern Railway just purchased by the United States Government for \$1,150,000.

The matter is referred to because of its close association with the proposed changes in the laws concerning Western public lands.

While it is doubtful whether the road is worth the purchase price to the Government, yet it cost its owners very largely in excess of that amount. Its owners claim that it cost above \$5,000,000. A reasonable estimate of its legitimate cost would be \$40,000 per mile, or \$2,840,000. The Government's estimate of the cost of 416 miles is \$26,800,000 or \$64,000 per mile. The seventy-one miles purchased legitimately cost more per mile at the time it was built than it should cost now to construct the proposed line. What are the causes which lead the owners of the Alaska Northern Railway to sell (and probably gladly) on a basis of \$16,338 per mile a road which probably cost more

than \$40,000 per mile, the extension of which the Government estimates will cost \$64,000 per mile? The story is one which should cause shame to every American citizen. *Ex post facto* laws are forbidden by the Constitution of the United States. New policies having the same effect may not be forbidden by law, but are none the less unjust and dangerous.

At the time the construction of this railway was undertaken the settled policy of the Government was to transfer its lands at a nominal price to *bona fide* applicants under such restrictions as would protect the rights of other citizens who might desire to purchase. This policy had peopled the West and brought greatness to the nation. Acting upon the justified theory that this policy would not be changed, at least without proper notice, seventy-one miles of the Alaska Northern Railway was built.

Alaska, with its enormous fuel resources and its peculiar need, was importing its fuel from British Columbia and paying an import duty in addition to burdensome transportation charges. Citizens had made application for coal lands in the Matanuska coal field and were getting ready to supply the demand for fuel as soon as the Alaska Northern Railway could furnish an outlet for production. The lands were surveyed by the applicants at great cost, development work was done, hundreds of thousands of dollars were received by the United States Government for these lands, and everything promised gigantic development of business enterprises and an immensely profitable traffic for the new railway.

The glowing prospects for Alaskan development were attracting capital and enterprise, and the prediction was fully justified that in five years Alaska would have a half-million population; that her gold mines would be producing fifty millions annually and that she would be furnishing the Pacific Coast States with coal at one-half its then cost.

The projectors of the Alaska Northern Railway spent over five million dollars based on the belief in Alaskan prosperity. Given just governmental treatment the enterprise was more than justified.

About this time someone discovered that the Guggenheims were indirectly interested in some coal lands in another part of Alaska. It was good politics to fight the Guggenheims. Someone else discovered that the land policy of the Government which had developed the Western empire was wrong, and under the cloak of conservation undertook to change that policy.

This alliance, assuming for itself all of the virtues, and branding the Alaskan pioneers as land grabbers, timber and coal thieves, began a crusade which led to the withdrawal of all Alaskan coal lands from entry and the prosecution and persecution of every man whom a vicious system of Government espionage could detect in any technical violation of the law.

Advantage was taken of the fact that the coal land law was not designed for Alaska and the ablest lawyers could not so direct a claimant as to meet the technical requirements. *Notwithstanding this the United States Government actually did receive over \$350,000 from applicants for coal lands in Alaska*, more than six years ago, refused to grant patents to the land and still keeps the money. More than that a committee of the House of Representatives of the United States deliberately and with malice aforethought (See Hearing Committee on the Public Lands, House of Representatives, Feb. 17, 1914) devised a clause in the Alaskan coal leasing bill intended to destroy all rights these claimants purchased with \$350,000 from the Government and which actually does destroy every possible hope of the claimants to have a hearing in court. A Senate committee approved this scheme, the Sixty-third Congress enacted it into a law and the President of the United States gave it his approval, *and the Government still keeps the purchase money.*

Let us hope that some future Congress actuated by motives of justice rather than political expediency will at least order a return of the money as a palliation for an injustice which never can be righted.

These were the conditions which destroyed the railroad enterprise. The refusal of the Fisher administration of the

Interior Department to grant an extension of the right of way because work which the Government policy had prevented had not been done, is but an incident. These are the causes which literally force the owners of the Alaska Northern Railway to sell it to the Government at less than 25 per cent. of its cost and which have robbed them of the opportunity to make their investment profitable.

The Government is not and should not be responsible for the success of any business enterprise, but when, with no great principle involved, it destroys by government edict the conditions upon which a business enterprise is predicated it commits a crime for which adequate justice never can be done.

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In another column we print in full a communication from Earl Henry, chief mining inspector of West Virginia, taking sharp issue with the MINING CONGRESS JOURNAL for its account of the safety work at the recent mine disaster at Layland, W. Va. We regret very greatly that any controversy has arisen as to who is entitled to credit for the heroic work which resulted in the saving of forty-seven lives. There should be glory enough for even the most unimportant assistant. The writer is proud of the fact that he is one of a large number who are striving to lessen the loss of life in mining operations.

All of these are justified in a feeling of satisfaction that so much of progress has been made.

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The Federal Government should never be permitted to do any work within a State which the State can do as well for itself. Work of a general character, the solution of problems of a general nature, should be done by the Federal Government rather than that forty-eight States should each undertake an investigation which the Federal Bureau might do once for the benefit of all. The putting into effect of the work shown to be advisable by such investigation should in every instance be undertaken by the States unless the work is such as to make it excessively expensive by comparison with the cost to the Federal Government.

The doctrine that the Federal Government should assume every responsibility which the States should but fail to undertake is a dangerous doctrine. Its ultimate result will be the destruction of State authority and the breaking down of the Government as framed by the makers of the Federal Constitution. The principle of home rule is vitally important. If West Virginia has progressed so far that she does not need the aid of the Bureau of Mines other States having had the same opportunity should soon be ready to assume their responsibility.

There is much, so much, work which cannot be done independently by the several States without costly duplication that the Bureau of Mines should gladly lay aside all work which can or ought to be assumed by the several States.

## STATISTICS ON COAL MINE

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There are obstacles to be considered in getting out statistics quickly after the close of the period they are to cover, but these difficulties are not insurmountable. The Agricultural Department has found a way, whereby many of its figures become available while they are still news. The Interstate Commerce Commission, and other divisions of Government work, get out figures promptly. Why cannot the same results be obtained by the Bureau of Mines?

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The risk is greater, even if the governments in Latin American countries were stable. Mexico five years ago was considered the most stable of all those coun-

tries. What has happened there during the last four years may happen in any one of the Iberian Republics. In Mexico, alone, a billion dollars of American money has been invested. A large percentage of this has been swept away in the flood of revolution, which has engulfed the country.

Much of Mexico's mining has been carried on with American money. Profits from these investments have not been satisfactory in the great majority of instances. The values are there, but political instability, difficulties of transportation, high smelting charges, extortion, private and public; danger of litigation and chances of unfair treatment by courts are a few of the drawbacks to investments in Mexico. These disadvantages will be met in most of the Latin American countries.

American brains, American money and American energy should be concentrated on the development of our own mineral resources. The opportunities of profits are better and the chances of failure to receive fair treatment are few.

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#### MINING CONGRESS JOURNAL NOT RIVAL OF TRADE PAPERS

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general public, toward the mining business.

At the National Capitol the mining industry has received but scant consideration, and every appropriation made for its benefit has been the result of long continued effort. Chairman Fitzgerald, of the Ways and Means Committee of the House of Representatives, pointed out in a recent speech before Congress that agriculture, during the last session of Congress, had received over \$2,000,000 in appropriations, more than was asked for in the budget of the Agricultural Department. Mining is an important industry—almost as important as agriculture. Agriculture receives about \$20,000,000 annually, mostly for the encouragement of production, while the mining industry, in the whole history of the Government, has received less—very much less—than was given to the agricultural industry last year in excess of the official estimates.

The mining trade journals are intended for those directly interested in the mining industry. The MINING CONGRESS JOURNAL will hope to interest those whose interest in mining is indirect, and it will hope to demonstrate that even the agriculturist has a very important, although indirect, interest in mining, because of the use of minerals which is a necessity in the modern day methods of agriculture, and because of the further fact that the basis of credit and the means of all commercial transactions through which markets are provided rest upon the success of one great branch of mining—the mining of precious metals.

The MINING CONGRESS JOURNAL has a big field of operation, in which, instead of being a rival to mining trade journals, it hopes to be of great assistance in extending the field in which mining trade journals legitimately can hope for patronage.

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#### COOPERATION

For years the Mining Congress has been working diligently to convince mine operators that concentrated effort is necessary to their best interests. An increasing number of operators realize this



fact as is indicated by the membership list of the Congress. If by any turn of good fortune the bulk of those still outside of the Mining Congress could be induced to join hands in this movement, results which would be truly surprising could be looked for.

There are few industries in the country which have had to shoulder so much adverse legislation as the coal mining interests. The high rate of insolvency among coal mining companies is attributed largely to this cause.

The mine owners themselves are largely responsible for much of the adverse legislation which has been enacted. Efforts in the past have not been systematic. It is necessary to do educational work of a public nature and there is no excuse for failing to get the absolute facts before the committees considering bills in State Legislatures.

As the American Mining Congress is a national organization, possessing all the necessary machinery for meeting this situation, it has been suggested that arrangements be made for carrying out this campaign through the established organization. The same results could not be obtained except by an expenditure of much greater effort through a separate organization. There are so many problems which are common to the metal and coal mining industries that the maintenance of separate organizations would not be justified and is not likely to appeal to those who study the question from a business point of view. If the gold and silver, coal, iron, copper, zinc, lead and aluminum operators all should form separate organizations it can be seen that there would be great duplication of work. There are some questions which are peculiar to each industry, but an analysis of the problems confronting mining in general will show that a high percentage of the problems are common to all branches of the industry.

Every effort has been made by the American Mining Congress to extend its membership. While the returns have been gratifying, there are still a very large number of operators who have not joined. It is believed that a review of the accomplishments of the American

Mining Congress will convince any fair-minded man that noteworthy results have been achieved. If the membership could be extended so as to include all operators of mines and oil properties, its capacity for accomplishment would be increased tremendously.

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Since the promulgation of the decree, a translation of which we publish in our news columns, the State Department has been flooded with requests by Americans having holdings in central or southern Mexico. The State Department has advised owners to pay the taxes as requested. Some holders of Mexican mining property are of the opinion that their properties are safe if they continue to pay the tax which has been in force for many years. They challenge the authority of Carranza to make a ruling of this kind without legislation. Conservative council, however, suggests that litigation is very likely to follow such a course, and that the safest procedure is to pay the full amount demanded by the revolutionary leader.

Mr. Carranza niftily avoids losses that would result from the depreciation of Mexican currency by specifying that mining taxes are payable only in Mexican gold or American currency at the rate of two for one. It may be remarked in passing that Mexican gold is just about as plentiful at present as proverbial hen's teeth.

There are many investors in Mexican mining properties who have grown sadder but wiser. The numbers who have been caused to regret and incidentally to acquire wisdom have been increased greatly by Mr. Carranza's decree. It is to be hoped that American investors will let this be a lesson and make their investments within the borders of their own country.

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## BASIS FOR OPTIMISM

Increasing prosperity in the mining industry is in evidence throughout the country. An analysis of publications from mining districts shows an abundance of news articles based on actual accomplishments. While there is a tendency on the part of the daily and weekly press in mining sections to be optimistic, whether there is foundation for it or not, the average "boost" story, which has little in fact to sustain it, fails to be convincing. This is equally true, whether read in a distant city or in the camp which is the basis of the article.

The increased activity already is being reflected in shipments. Perhaps the most notable improvement has taken place in the iron and copper districts of the Lake Superior region. The lead and zinc operators of Joplin and other Missouri districts are taking full advantage of the high price being paid for their product. Colorado is showing more vigor in her mining returns than has been the case in many months. A special activity is reported from the Couer d'Alenes district, where the lead, silver, zinc and copper mines are the scenes of greatly increased production. Recent strikes in Cripple Creek have stimulated work there. California is taking old-time strides toward higher production figures. Some notable work is being done in Arizona.

On the whole the industry is taking on a roseate glint that would have been believed impossible a few months ago.

## A POSSIBLE DANGER

Only a possibility, yet a possibility nevertheless, is that Germany, shut off by the war from its copper supply, which has come very largely from this country, may, through necessity, learn how to dispense with its use, or, at least, do so in a large degree. Doubtless German metallurgists and chemists are and have been at work seeking to devise a substitute or some means by which but a small part of what has heretofore been deemed necessary will suffice. Copper has been selling at thirty-five cents a pound in Germany and the price is steadily mount-

ing. This is indicative of not only the great scarcity there of the metal, but of the equally great need of it. It is inconceivable that the proverbially painstaking German mind would not take up the problem and earnestly seek for a solution.

It is not unlikely also that patient research is now dealing with the matter of making cheaper the working of whatever copper ores are to be found in Germany. Up to the beginning of the war, the opening of copper mines in that country offered no attraction in a financial way, as they could not be operated at a profit in competition with the copper mines of America.

It is not beyond the realm of possibility that as a result of the war our copper exports may show a decrease, or, at best, fail to continue in that steady increase which has so distinguished the sale of the red metal for many years. Germany has heretofore been our heaviest consumer of copper.

ARIZONA'S CHAPTER CAN  
ACCOMPLISH MUCH GOOD

The Arizona Chapter of the American Mining Congress, the latest organization created for the purpose of promoting the best interests of the State, cannot be estimated too highly. The exceptionally high standing of its promoters in the mining field guarantees beyond question the growth of the Chapter, and the objects as set forth bodes nothing but good for the industry. True, in most everything, the future can best be judged by the past, and in no one thing does this apply with a surer certainty than the industry of mining. For instance, without dealing explicitly with specific reference to spurious operators in this State in the past they are known by the Chapter, therefore little trouble will be experienced in making ample protection through needful legislation that will prevent repetition in the future.

Mining is the chief industry of Arizona, and for many years to come will continue so, therefore, anything to promote its activity directly uplifts every other industry in the State. The most

bounteous crops may be produced year after year; stock may fatten and sell at enormous prices; still general prosperity need not, nor will it very likely result. But, introduce general activity in the mining field, and then it is that you will see the farmer smile, and workmen and shopmen of every class become prosperous and happy.

Therefore, to read the objects of the Chapter one is forced to the conclusion that it is interested equally in every industry in the State. Such procedure is very laudable indeed, but a most important fact must not be lost sight of, which is, that farming, stock growing and rail-roading cannot be as prosperous without mining as they will be with it.

The organization to be of permanent benefit must be honest. The buyer of mining stock is the man to be protected. It is he that starts and keeps the hoists going, and any legislation tending to safeguard the purchaser of mining stock forges the strongest link in a chain of eventualities that always accompanies mining. Years ago a bill was introduced in the legislature by Hon. A. J. Doran which was intended to correct the activity of the "wildcat" and give the investor a fair run for his money. The bill failed to pass, and strange as it may seem, mining development has yearly grown less ever since.

The panic of 1907 put a further brake upon development of mining in Arizona. Now more than seven years have passed which is ample time for the development of new capital which stands ready to enter the field regardless of the skill of unprincipled operators of the past. That these same "fakers" will be on the ground in the advance of returning activity need never be doubted. Therefore to checkmate their activity in the beginning should be the endeavor of the Arizona Chapter of the American Mining Congress.

The United States is now producing more than two-thirds of the world's petroleum. There is likelihood that the proportion will be increased. The country's oil production is valued at one-third the value of all the metals mined.

## **TO EXTINGUISH MINE FIRE**

### **WHICH HAS RAGED FOR YEARS**

**Bureau of Mines Expert Certain Panther Creek Valley Fire Can Be Controlled**

**State Legislature and City Expected to Furnish Money for the Work**

It will be possible to extinguish the fire which has been burning for sixty-two years in the mine of the Lehigh Coal and Navigation Company, in the Panther Creek Valley, of Pennsylvania. This conclusion has been reached by Charles Enzian, an engineer of the Bureau of Mines, who was sent to Panther Creek to make an exhaustive inspection of conditions.

He reports a serious state of affairs. Several families have been forced to leave their homes, owing to the fumes coming from cracks in the earth. The area of the fire has spread considerably in the last year.

The unusual progress of the fire during recent months was caused by an opening for a mine which cut two of the seams which are burning. This allowed an inlet of air. During the last two months the fire has made unusual headway. All possible inlets of air have been sealed, and the fire is much less intense at present, Mr. Enzian reports.

As the Bureau of Mines has no money to devote to the work of extinguishing this fire, an appeal has been made to the State Legislature and the mayor of the city. It is expected that they will provide funds to put out the fire.

Mr. Enzian is confident that the fire can be extinguished, and states that it is only a matter of cost.

### **Bureau of Mines Has Ball Team**

Employees of the Bureau of Mines have organized a baseball club, which will compete with the Interior Department League during the summer. The Bureau also is taking an active part in the organization of a target association, which will be organized under the National Rifle Association of America.

# **ERA OF RAPID DEVELOPMENT EXPECTED ALONG RAILROAD**

(Continued from Page 183)

gist. In addition there will be thirty or forty camp men, packers, cooks and canoe men. Work will be continued in the North until the end of September.

The Geological Survey has done a great deal of work in the region to be traversed by the railroad and the territory tributary to it. The work which has been done is described in a number of bulletins, among which are: Bulletin 500, "Geology and the Coal Fields of the Lower Matanuska Valley." It is by G. C. Martin and F. J. Katz; Bulletin No. 295, "The Yukon-Tanana Region, Alaska;" Bulletin No. 251, "The Gold Placers of the Fortymile, Birch Creek, and Fairbanks Regions, Alaska." (Lewis M. Prindle is the author of the last two publications). Bulletin No. 247, "Fairhaven Gold Placers, Seward Peninsula, Alaska," by Fred H. Moffit; Bulletin No. 375, "The Forty-mile Quadrangle Yukon-Tanana Region of Alaska," by L. M. Brindle; Bulletin No. 327, "Geologic Reconnaissance in the Matanuska and

Talkeetna Basin, Alaska," by Sidney Paige and Adolph Knope. In addition to these bulletins much information, concerning the region tributary to the railroad, will be found in Bulletin 480 and Bulletin 592. Each is by Alfred H. Brooks, the head of the Alaskan mineral resources division of the Survey, and his assistants. Each bulletin is entitled "Mineral Resources of Alaska." One is the report made in 1910 and the other was made in 1913. A number of other publications of the Survey touch on matters of interest on the Seward peninsula.

## **NEW WORK TO BE DONE**

While a great deal of detailed work has been done in this region by the Survey, there is room for much more extensive investigations, which will be undertaken at once, now that the route of the railroad has been determined.

The first detailed base map of the Matanuska coal fields was prepared in 1909. This was followed in 1910 by additional geologic investigations. Speaking of the Matanuska fields, the report to the Survey states that the work done has justified fully its cost if only from the fact



**TYPICAL ALASKAN COAST COUNTRY**

This portion of the Silver Bow basin is to receive attention by the Government's Geologists this summer

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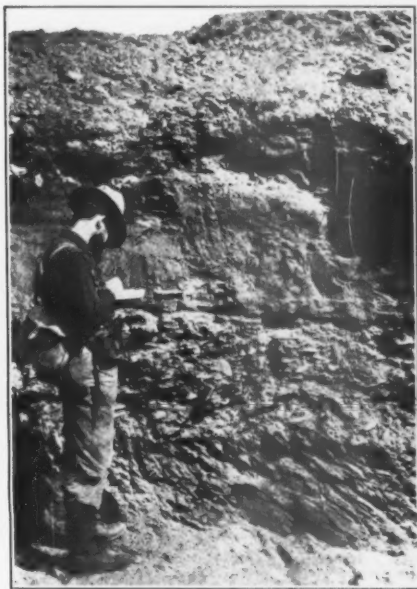
VIEW OF JUNEAU, ALASKA'S CAPITAL

that it has revealed a much larger area of supposed coal bearing formations than was known previously. Previous to this survey the area underlain by the supposed coal bearing rocks was estimated at about fifty square miles. Now it is estimated to be at least seventy-four and possibly ninety-eight square miles. It has been determined that all this area contains workable coal beds, but the survey indicated, at least, that the coal reserves of this field may be twice as large as previously estimated. In this connection it should be noted that coal is known to occur in each of the fields discussed, and the coal bearing area may be considerably larger than is included in the figures given by the Survey.

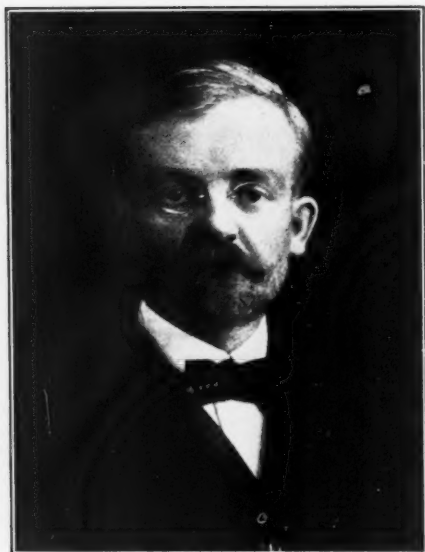
#### MENDENHALL'S TRIP

The Matanuska valley was traversed in 1898 by W. C. Mendenhall who was attached as geologist to military expedition No. 3, in charge of Captain Edwin F. Glenn, 25th Infantry, United States Army. Mendenhall's exploration covered areas on the west shore of Prince William's Sound and a route extending from Resurrection Bay to the head of Turnagainarm.

True to its custom, the Survey does not indulge in predictions as to the pos-



GEOLOGIST TAKING NOTES CONCERNING  
AN ALASKAN DEPOSIT OF GOLD-  
BEARING GRAVEL



ALFRED H. BROOKS

In charge of the U. S. Geological Survey's Alaskan Expedition

sible future of the field. Investigations have shown, however, that the coal covers a considerable area. Many sections were taken, but as no drilling or underground work had been done, the reports of the Survey are confined to superficial observations.

The coal of the Matanuska valley is of three kinds, anthracite, high-grade bituminous and low-grade bituminous. Much of the high-grade coal will be used in the manufacture of coke, it is predicted. This coal possesses excellent coking qualities. The low-grade bituminous coal probably can be mined and shipped more cheaply than the high-grade bituminous, it is said. The two kinds of coal will be non-competitive to a certain extent, as each will have its own special market, according to the report of the geologists.

#### NAME DISADVANTAGES

Some of the disadvantages that are certain to be met with in mining coal in the Matanuska valley are brought out by the Survey. The veins dip at a very sharp angle. It will be necessary to work them with shafts or slopes. Little of the

coal lies above the general drainage level. It will be necessary from the very start to pump water. Gas is likely to be a serious problem in mining in this region.



GEOLOGICAL FIELD PARTY ASCENDING AN ALASKAN RIVER IN THE SPRING

Indications point to the fact that there will be danger from explosive gases almost from the surface.

#### Pacific Coast Coal Decreases.

One of the effects of the great oil production in California has been to considerably reduce in recent years the coal output of Washington, which is the only coal producing state of any importance on the Pacific coast. The consumption of California oil for fuel in California, Oregon and Washington is estimated to be equivalent to 20,000,000 tons of coal or about six times the coal yield of the three states in 1914. The coal production of these states for 1913 was 3,877,891 short tons and it is estimated that the 1914 output was between 20 and 30 per cent under that figure.

A Chinese mining and smelting company has opened an office in New York for the sale of antimony in the United States. Through government officials in Washington it has already been put in touch with a concern here which has purchased over \$40,000 worth of its antimony.

During 1914 the United States exported gold to the amount of \$222,616,156, as against \$91,798,610 in 1913. Silver exported in 1914 totaled \$51,603,438, and in 1913 \$62,776,631.

**VIOLA**

**Safety**

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## **VIOLATION OF LAW CAUSES MANY ACCIDENTS IN MINES**

### **Safety Devices Unavailing So Long As Fool-hardy Miners Are Not Restricted; Education Needed**

That the violation of the mining laws of the State by both workmen and mine officials is responsible for many accidents and deaths in the coal mines, is an opinion expressed by Earl A. Henry, chief of the Department of Mines of West Virginia. "For instance," said Mr. Henry, "when shooting from the solid is allowed in a mine, without a special permit from the district mine inspector, there is a violation of the law on the part of the manager on down to the man who places the shot, and the unlawful and dangerous practice is too common in this State."

Mr. Henry also expresses the view that all the safety devices ever invented will not prevent accidents unless the elements of danger are removed from the path of the ignorant and inexperienced class of workmen. "It is impossible to watch them all," he says, "and the only way to throw protection around them is to remove the danger as far as possible. When an overcharged shot is fired by a man who does not realize just what he is doing, and a dust explosion is the result, the fact that the dust was allowed to accumulate without sufficient sprinkling was an element of danger left in his path. An experienced miner will avoid dangers that the inexperienced one apparently recklessly will seek, when in reality his lack of education of proper mining precautions is the cause. He will not heed danger signals, and especially in gaseous mines he is placing many lives in danger, in addition to his own."

"In the old days, when coal miners were raised in the mines, accidents of any magnitude were rare, but the increased demand for the output has called for more men, with the result that a floating class constitutes a large percentage of the workmen in a majority of the coal mines of the country, and there is always danger from this inexperienced

class. Hence the necessity for a more closely defined method of throwing protection around them and keeping them out of the way of danger.

"A child is taught to dread the fire, and a kettle of boiling water would not be left in his path, and the same lesson applies to the green men who go to work in the mines. It is a naturally hazardous occupation at its best, and they must be taught its dangers, and as far as possible keep the dangers out of their way.

"The coal mines of West Virginia are as well equipped with safety devices as any mines in the world, and if the expenditure of money would prevent accidents there would never be a fatality in the coal mines of the State, for the operating companies are anxious to have them reduced to a minimum, and in addition to all necessary expenditures along this line are encouraging every move for the better education of their employes for their own protection. But the time is ripe for strict attention by mine officials to the small details that cause accidents through the hands of inexperienced men, and as far as possible keep danger out of their path."

### **STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION**

Complying with the postal law of August 24, 1912, THE MINING CONGRESS JOURNAL submits the following information to its readers: THE JOURNAL is published monthly at 526 Munsey Building, Washington, D. C. Editor, J. F. Callbreath; Business Manager, J. F. Callbreath, Publisher, The American Mining Congress; Owners, The American Mining Congress, a corporation not for profit—Carl Scholz, Chicago, Ill., president; Harry L. Day, Wallace, Idaho, first vice-president; M. S. Kemmer, New York City, second vice-president; George H. Dern, Salt Lake City, Utah, third vice-president; J. F. Callbreath, secretary. There is no outstanding bond issue or mortgage of any kind on the publication. (Signed) J. F. Callbreath, Editor. Sworn to and subscribed before me this sixth day of April, 1915. Thomas C. Willis, Notary Public.

### **Colliery Sold**

Capitalists from Pittsburgh and Scranton, Pa., have purchased the Whippoorwill Colliery at Broad Mountain, near Shenandoah, Pa.

## RECENT LEGAL DECISIONS; RULING HANDED DOWN IN TUNNEL DUMP CASE

**Federal Decision Rendered in Case where Matter of Disposal of Débris was  
in Dispute—Matured Provisions of Sale Contract Cannot Be Enforced  
Under Certain Condition—Income Tax Question**

The fact that a tunnel's mouth was located at an elevation of about 10,000 feet above sea level, upon a steep mountain slope, not adapted to many uses, and where the owner of the surface as the grantor of the tunnel had long used the surface as a place of deposit for similar refuse brought from his own mines and from his portion of the tunnel, raises the question of the reasonable necessity of the right of the tunnel grantee to deposit the refuse on the surface of the tunnel grantor, as well as the extent and mode of use of the surface by the grantor, and these questions should be determined by a jury in a controversy as to the right of the tunnel grantee to deposit the refuse on the surface.—*Himrod v. Fort Pitt Mining & Milling Co.*, 220 Federal 20.

### MINING LEASE; RIGHT AFTER FORFEITURE

A vendor in an executory sale contract cannot after exercising his contractual right of forfeiture for the vendee's non-performance, rescind the contract and at the same time enforce its matured provisions; and he cannot, whether the property is real estate or personal, after forfeiting the contract and taking back possession because of the vendee's failure to make a payment when due, maintain an action to recover such payment; and this rule applies to a mining lease.—*Young's Mining Co. v. Courtney*, 219 Federal 868.

### MINING LEASE; ARBITRARY FORFEITURE

A lease of mines, supposed to contain iron ore for a period of thirty years, upon a royalty of 16 cents per ton with a stated minimum royalty payable quarterly each year and providing that if in any year the minimum payment made by the lessee was more than the agreed royalty

for the actual tonnage of such year, and if in any one or more years more iron ore was thus paid for than was actually mined and removed, then the ore so paid for and not removed could be removed in any subsequent year without payment therefor, may be forfeited on a subsequent default in the payment of a quarterly payment; and on the lessor's declaration and notice of forfeiture a Court of Equity will not under such circumstances give the lessor equitable relief in the way of a lien on the lessee's personal property in aid of the lessor's arbitrary forfeiture of the lease.—*Young's Mining Co. v. Courtney*, 219 Federal 868.

### CORPORATION TAX

A corporation that is not engaged in mining or trading or other like business but which made mining leases of its lands, valuable for ore, by which it granted the absolute right to dig and remove the ore in terms ranging from twenty-five to fifty years, the lessee covenanting to pay yearly fixed amounts of so much per ton for the ore extracted and minimum amounts to be credited on ore subsequently extracted, the corporation confining its operations to collecting the claims against the lessee's protecting and preserving the property, converting it into money, and distributing the proceeds among its stockholders, is not subject to the internal revenue corporation tax, as such sums so received are not "income" within the meaning of that word in the Corporation Tax Act, but must be regarded as parts of the property or capital of the corporation in a different form.—*Von Vaumbach v. Sargent Land Co.*, 219 Federal 31.

### MINING LEASE—SALE OF ORE

A mining lease by which the lessee is granted the absolute and exclusive

right to mine, extract and remove the ore in the land described during the term of the lease, where the term is practically equivalent to an unlimited term is, in fact, a sale of the ore and the royalties reserve in such a lease are, in fact, the purchase price of the ore.—*Von Vaumbach v. Sargent Land Co.*, 219 Federal 31.

#### MINERAL LANDS; POSSESSION

The possession of the surface owner of mineral lands is not adverse to the title of the owner of the coal and minerals, but such surface possession inures to the benefit of the owner of the underground materials—*Shrewsbury v. Pocahontas Coal & Coke Co.*, 219 Federal 142.

#### MINERAL LANDS; OWNERSHIP

The general presumption is that the person who has possession of the surface of land has possession of all below the surface also; but when a separation has been made by conveyance or reservation of the ownership of the surface from that of the underground minerals, the owner of the surface can acquire no title to the minerals by his exclusive and continued possession of the surface; nor does the owner of the minerals lose his right or his possession thereof by any length of non-usage, but to lose his right to such minerals he must be disseized and there can be no disseizing by any act which does not actually take the materials out of his possession.—*Shrewsbury v. Pocahontas Coal & Coke Co.*, 219 Federal 142.

#### MINING LEASE; ROYALTIES

The owner of an undivided interest in a mining claim leased his co-owner's interest, the lease providing that the lessee should possess and work the entire claim, including his own interest, under the terms of the lease, and subsequently sublet the property to another, reserving to himself a percentage of the gross output and thereafter conveyed his undivided interest in the property to his wife and thereafter became a bankrupt. In a subsequent controversy between the wife of the bankrupt and the trustee in bankruptcy, the wife could not claim and recover

all the royalties reserved in such sublease.—*Storecker v. Patterson*, 220 Federal 21.

#### MINERS' LIENS; ENFORCEMENT

The statute of Washington gives a lien to every person performing labor for any person or company on the franchise, earnings and on all the real and personal property of such person or company which is used in the operation of its business, to the extent of the moneys due the laborer from such person or company operating the franchise or business, for labor performed within six months next preceding the filing of a claim for such lien, and under this statute miners employed by a lessee of a coal mine, who held besides his lease a conditional right of purchase, but of which he did not avail himself, cannot enforce their liens against the owner of the mine, the lessor, but their liens can extend only to the lessee's leasehold interest in the mine and to the personal property used by him in its operation; but the miners' liens may be enforced against personal property sold by the lessor to the lessee under a conditional contract of sale, where such contract was not recorded within ten days after the change of possession, as required by statute, and as to the miners the sale must be treated as absolute and the property subject to their lien.—*Cook v. Snyder*, (Washington) 116 Pacific 156.

#### MINING LEASE; FORFEITURE

A forfeiture and reentry by a lessor under a mining lease between rental periods is a forfeiture of all payments not fully earned.—*Young's Mining Co. v. Courtney*, 219 Federal 868.

#### TERMINATION OF MINING LEASE

The termination of a mining lease before the expiration of the period by surrender, reentry or eviction, without more, discharges the lessee from liability for all rents that have not accrued and leaves him liable only for rents that are overdue.—*Young's Mining Co. v. Courtney*, 219 Federal 868.

#### MINER'S LIEN—ENFORCING

Prior to the code of 1913, the statute of Arizona gave all miners a lien for

labor upon a mining claim; but by construction the statute did not give a lien to miners for labor unless the labor was performed at the request of the owner of the mine or his agent. But Section 3654, Civil Code, 1913, amended the original statute and gave miners a lien for labor in or upon any mine or mining claim under certain conditions: First, under or by virtue of a contract between the laborer and the owner of the mining claim or his agent; second, under or by virtue of a contract between the laborer and the lessee of the mine, where the terms of the lease from the owner of the mine to the lessee permit the lessee to develop or work the mine; third, under or by virtue of a contract between the laborer and any person or corporation having an option to buy, or contract to purchase the mine from the owner thereof, where such option contract permits the person or corporation to work or develop the mine. But this amendatory act cannot apply to the owner of a mining claim who gave an option contract to sell prior to its passage, as the application of the amendatory law in such case would burden the owner's contract with a new obligation, though it might apply if the contract of sale had been executed after the passage of the amendatory act.—*Foltz v. Noon* (Arizona), 146 Pacific 510.

#### RIGHT OF LESSOR TO CANCEL

An oil lease containing a provision to the effect that when the drilling for oil should have been commenced it should be continuously prosecuted, unavoidable accidents excepted, until the well is completed so as to produce oil in paying quantities or until it is reasonably certain that oil will not be found in such well in paying quantities, and containing another provision to the effect that a well producing oil in paying quantities means a well that will produce by natural flow, or by pumping, as much as twenty-five barrels of oil every twenty-four hours for a period of thirty days, may be cancelled by the lessor when the time limited in the contract has expired and the lessee has failed to produce oil in the quantity stipulated, although wells drilled did produce oil in actual paying quantities.—

*McLean v. Kishi*, (Texas) 173 Southwestern 502.

#### DEATH OF MINER; LIABILITY

The statute of Kentucky requires a mine operator to furnish caps and props to be used in securing the roof at such places where the miner is required to keep the roof propped, after the props and caps have been selected and marked by the miner; and in an action against a mine operator for the death of a miner, proof of a custom of the mine, to the effect that under such custom it was not the miner's place to select and mark his props but merely to request the foreman to furnish such props, is inadmissible, as a custom or usage contrary to the expressed provisions of a statute is void and where there is conflict between the custom or usage and a statutory regulation the statutory regulation must control, and where a statute speaks on a subject its terms cannot be controlled by custom.—*Palmer v. Empire Coal Co.*, (Kentucky) 172 Southwestern 97.

#### ROYALTY AS RENT

A deed by a father to his sons for a large tract of land containing valuable coal mines provided among other things that if the grantor's wife survives him she shall receive one-half of all rents from off the place, from all resources whatsoever, gives to the surviving wife a share in the income from the mines while operated on a royalty basis, as well as all other income and proceeds from the farm, regardless of the manner and form of payment or the name by which it might be designated; and especially so where the parties themselves placed this construction upon the deed.—*Saulsberry v. Saulsberry*, (Kentucky) 172 Southwestern 938.

#### GRANT OF MINING RIGHTS

A grant of a right to bore a tunnel or to sink a shaft for mining purposes may imply the right as a reasonable necessity to use the surface of lands of grantor for the deposit of waste and debris brought from the tunnel or shaft, such necessity to be determined as a question of fact from the circumstances

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of the particular case.—Himrod v. Fort Pitt Mining & Milling Co., 220 Federal 80.

#### MINING OPERATIONS—USE OF SURFACE

There are obvious degrees of necessity for the use of the surface in the conduct of subterranean mining operations, for the absolute necessity of sinking shafts or making other entrances to the minerals, to the practical necessities of business operations, such as the placing of steam engines and machinery at the mouth of an entrance, of constructing ponds of water to supply the engines, of laying and operating rail or tramways to bring in supplies and to carry out the ore, of storage of minerals on the surface pending sales, of assembling houses, stores, and shops for the use of miners, and such uses may be properly implied in the grants if found to be necessary in such mining operations.—Himrod v. Fort Pitt Mining & Milling Co., 220 Federal 80.

#### DEFINITION OF ROYALTY

Royalty is a certain percentage or proportion, specically stated, or on a graduated scale according to the value of the ore, based on either the net proceeds, smelter or mill returns, or returns evidenced by the certificate of the United States Assay Office, or otherwise as the parties may agree upon; and royalty cannot be distinguished for rent on the ground that rent is the price paid for the use of a thing, while royalty is a part of the thing itself. The terms "rent" and "royalty," as the result of usage and custom, are often used interchangeably.—Saulsberry v. Saulsberry, (Kentucky) 172 Southwestern 932.

#### To Manufacture New Engine

The Southwark Foundry & Machine Co., of Philadelphia, will manufacture the Harris Valveless Engine in the United States, having secured the exclusive rights. It will be known as the Southwark-Harris Valveless Engine and will be built in sizes from 75-H. P. to 1,000-H. P. Leonard B. Harris, the inventor of the engine, will be retained by the company as consulting engineer.

#### HOST OF MINING MEN

##### TO ASSEMBLE IN SEPTEMBER

Without question, September will see the assembling of more mining men than ever has been the case before. San Francisco is to be the meeting place during that month of the American Mining Congress, International Engineering Congress, the American Society of Civil Engineers, the American Institute of Mining Engineers, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers.

The eighteenth annual convention of the American Mining Congress will be Monday, Tuesday and Wednesday, September 20, 21 and 22. This will be followed immediately by the joint field meet of the Bureau of Mines and the American Mine Safety Association.

The secretary of the American Mining Congress will arrange hotel accommodations for any mining men who may request him to do so. As it is anticipated that the hotels at San Francisco will be crowded during the time of the mining conventions, inconvenience may be avoided by having reservations made in advance.

#### Students Teach Foreigners

Students of the Colorado School of Mines are instructing foreign miners in the practical end of the industrial service movement, being adopted at the school. Classes are held twice a week. Elementary English, advanced English and mathematical courses are to be conducted.

#### Frederick W. Taylor Dies

Frederick W. Taylor, age 57, died in Philadelphia, March 21. Mr. Taylor was known widely as an originator of the modern science of efficiency engineering on which he wrote several books.

United States bidders were unsuccessful in bidding for burnishing coal for the Chilean mines. The price that got the business was \$6.70 per ton delivered at Valparaiso—a price which it is said the United States exporters cannot reach.



# PENNSYLVANIA LEGISLATURE STRUGGLES WITH COMPLICATED COMPENSATION LAW

**Payment to Alien Widows and Children if Not Residents of United States Not  
to Exceed Two-Thirds of Amount Provided For Residents—Pending  
Legislation in Other Commonwealths**

## PENNSYLVANIA

House Bill No. 929, introduced by W. H. Wilson. The bill defines the liability of an employer to pay damages for injuries received by an employee in the course of employment, establishing an elective schedule of compensation and providing procedure for the determination of liability and compensation thereunder. It is provided that the compensation act shall apply to all accidents occurring within the State irrespective of the place where the contract of hiring was made, renewed or extended, but under no circumstances is to apply where the accident occurred outside of the borders of the Commonwealth.

## DEFINES TERMS

The bill goes into detail in defining such terms as employer, employee, contractor and referee. Some of the other provisions of the bill are as follows: That in any legal action brought to recover damages for personal injury it shall not be a defense if the injury was caused by the negligence of a fellow employee; that the employee had assumed the risk or that the injury was caused by the negligence of the employee—unless it be established that the accident was due to the employee's intoxication or by his reckless indifference to danger. The burden of the proof in these cases shall be upon the defendant.

## RELEASES INVALID

No agreement or release of damages made before the happening of any accident is to be valid, except in certain cases specified. The receipt of benefits from any association, society or fund shall not bar the recovery of damages by action of law nor the recovery of compensation. No compensation shall be made when the injury or death be intentionally self-inflicted. The burden of proof of such fact is upon the employer. Wherever death is mentioned as a cause for compensation in the bill it is understood to mean only death resulting from injury and its resultant effects and occurring within 300 weeks after the accident.

The term injury is not to include an injury caused by an act of the third person intended to injure the employee because of reasons personal to him and not directed against him as an employee or because of his employment.

but shall include all other injuries sustained while the employee is actually engaged in the furtherance of the business or affairs of the employer whether upon the employer's premises or elsewhere and shall include all injuries caused by the condition of the premises or by the operation of the employer's business or affairs thereon sustained by the employee who, though not so engaged, is injured upon the premises occupied by or under the control of the employer or upon which the employer's business or affairs are being carried on, the employee's presence thereon being required by the nature of his employment.

## WRITTEN STATEMENT REQUIRED

In every contract of hiring made after December 31, 1915, and in every contract of hiring renewed or extended by mutual consent, expressed or implied, after that date, it shall be presumed that the parties have accepted the provisions of the act and have agreed to be bound thereby, unless there be at the time of the making renewal or extension of such contract an expressed statement in writing from either party to the other that the provisions of Article 3 of the act (elective compensation) are not intended to apply and unless a true copy of such written statement accompanied by a proof of service thereof upon the other party setting forth under oath or affirmation the time, place and manner of such service to be filed with the bureau within ten days after such service and before any accident has occurred.

## SIXTY DAYS' NOTICE REQUIRED

Any agreement between employer and employee for the operation or non-operation of the provisions of Article 3 may be terminated prior to any accident by either party upon sixty days' notice to the other in writing. If a copy of such notice with proof of service be filed in the bureau, every employer liable under the act must insure the payment of compensation in the State Workmen's Insurance Fund, or in any insurance company or mutual association or company authorized to insure such liability in the State, unless such employer shall be exempted by the bureau from such insurance. An employer desiring to be exempt from insuring the whole or any part of his liability shall make application showing his financial ability to pay compensation. If satisfied as to the appli-

cant's financial ability, a written order making the exemption is to be issued. The bureau from time to time may require further statements of the financial ability of such employer.

#### ALIEN DEPENDENTS

Compensation to alien dependent widows and children not residents of the United States shall be two-thirds of the amount provided in each case for residents and the employer may at any time commute all future installments of compensation payable to alien dependents not residents of the United States. Alien widowers, parents, brothers and sisters not residents of the United States shall not be entitled to any compensation.

At any time after the injuries the employee, if so requested by his employer, must submit himself for examination at some reasonable time and place to a physician or physicians legally authorized to practice under the laws of such place, who shall be selected and paid by the employer. If the employee shall refuse upon the request of the employer to submit to the examination by the physician or physicians selected by the employer, the board may order the employee to submit to an examination at a time and place set by the employer and by the physician or physicians selected and paid by the employer.

#### EXAMINATION COMPULSORY

The refusal or neglect without reasonable cause of the employee to submit to examination ordered by the board either before or after an agreement or award, shall deprive him of the right to compensation during the continuance of such refusal or neglect, and the period of neglect or refusal shall be deducted from the period during which compensation otherwise would be payable. The employee shall be entitled to have a physician of his own selection to be paid by him, to participate in any examination requested by his employer or ordered by the board. A referee's findings of facts shall be final unless the board shall allow an appeal therefrom as is provided. The board's findings of fact shall in all cases be final. From the referee's decision on any question of law an appeal may be taken to the board and from any decision of the board on a question of law an appeal may be taken to the courts.

#### AS TO AGREEMENTS

If after any accident the employer and the employee or his dependent concerned in any accident shall fail to agree upon the facts thereof and the compensation due under this act, the employee or his dependent may present a claim for compensation to the board. When presented the board shall assign it promptly to a referee for hearing and determination. Within seven days after a certified copy of the petition has been served upon any adverse party he may file with the referee designated an answer in the form prescribed.

A hearing shall not be less than twelve days nor more than twenty-one days after notice of the filing of the petition. Within seven days after the conclusion of any hearing the referee shall state his findings of fact, his award or disallowance of compensation. Any party in interest may take an appeal to the board within ten days after notice of a referee's award.

#### REQUEST BY PETITION

Whenever the employer and employee or his dependent shall on or after the fourteenth day after any accident agree on the facts on which a claim for compensation depends, but shall fail to agree on the compensation payable thereunder, they may by request, petition the board to determine the compensation payable. Any appeal from a decision of the board to the Court of Common Pleas and from it to the Supreme Court, shall take precedence over all other civil cases. All hearings before the board or before a referee shall be public. No claim or agreement for legal services in support of any claim for compensation or in preparing any agreement for compensation shall be an enforceable lien against the amount to be paid as compensation or be valid or binding in any other respect, unless it be approved by the board. If any provision of this act shall be held by any court to be unconstitutional such judgment shall not affect any other section or provision. This act shall not apply in the case of an accident occurring prior to the first day of January next succeeding its passage and approval.

#### ADMINISTRATION

House Bill, No. 930, also by Mr. Wilson, provides for the administration of the workmen's compensation act. It provides for the creating of the bureau of workmen's compensation of the Department of Labor and Industry, for the establishment of workmen's compensation board to have charge of the bureau. The bill also provides for the division of the Commonwealth into the workmen's compensation districts and the appointment of workmen's compensation referees; the defining of powers and duties of the Commissioner of Labor and Industry, the bureau of workmen's compensation, referees and the workmen's compensation board and the factory inspectors of the Department of Labor and Industry.

#### INSURANCE

House Bill, No. 931, also by Mr. Wilson, provides for the creation and administration of a State fund for the insurance of compensation for injuries to employees of those who subscribe to it.

#### PREMIUMS AND PENALTIES

House Bill, No. 932, also by Mr. Wilson, regulates policies of insurance against liabilities arising under article 3 of House Bill No. 929, and provides for the regulation of premium rates therefor and provides penalties.

# **MINING CONGRESS JOURNAL IS BEING READ CRITICALLY**

**Apparent Errors in Figures Bring Several  
Communications From  
Readers.**

**Comparison of Coal and Gold Mining Statis-  
tics Causes Protests From  
Metal Men.**

In starting a new publication there are many obstacles to be overcome which are not suspected by persons on the outside. There are mechanical difficulties and difficulties of organization which require some time for their elimination.

At some stage during the making up of one of the issues of the MINING CONGRESS JOURNAL some of the paragraphs which should have come under State headings were separated in the composing room from the articles to which they belonged, and run as "fillers" in other parts of the JOURNAL. Separated as they were from the heading to which they appertained, they appeared to contain information which was highly erroneous. For instance, an item which should have been one of several Arizona notes was run alone. The output of lead for 1914 was given. It was the output of lead in Arizona, but, standing alone, the natural inference is that it was the world's output.

## **UNFORTUNATE COMPARISON**

Another filler, thrown in to fill a hole at the last moment, compares the coal and gold mining industries somewhat at the expense of the latter. It is not the intention of the MINING CONGRESS JOURNAL to boost one kind of mining at the expense of another.

These items have resulted in the receipt of a number of letters calling attention to the items mentioned. They are sources of considerable satisfaction, since it indicates that the JOURNAL is being read and read critically. Letters of this kind aid greatly in the elimination of errors and in bringing the publication to a higher standard.

## **VAN WAGENEN PROTESTS**

One of the letters received, which is typical of others, is from Theodore F.

Van Wageningen, of Denver. Mr. Van Wageningen says:

"What is the name of the high school kid statistician who is running the 'squib' department for you in the JOURNAL? Just listen to this:

The earth's gold production for one year, it is said, would scarcely pay for half the anthracite mined in one modest sized district in Pennsylvania.

Pennsylvania coal mines pay wages to nine men for every one employed in gold and silver mining.

To buy all the gold and silver in this country would take \$1.50 apiece for every man, woman and child in the United States. It would take twice that amount from everybody in the country to merely pay for the coal mined in Pennsylvania during 1914.

"The earth's gold production in 1913 had a value of \$466,136,100.

"Pennsylvania's total production of anthracite in 1913 had a value of \$177,622,626.

"I am not posted as to labor conditions in Pennsylvania and so have no remarks to make as to paragraph 2.

## **SEES ANOTHER FLAW**

"As to paragraph 3. Assuming the population of the United States to be 100,000,000, the writer intimates that \$150,000,000 would buy all the gold and silver in the country. Well! well, that is news. According to current belief (for which there is good foundation) the United States branch mint at Denver has \$150,000,000 in gold alone in its vaults.

"Again, the production of gold and silver in the United States up to the close of 1913 had been as follows: Gold, \$3,540,799,400.00; silver, \$1,709,517,600.00; total, \$5,250,317,000.00.

"Now, where does your young man think all that plunder has gone, that he could buy the pitiful remainder for a measley \$150,000,000? Tell him to go back to the sixth grade in the grammar school and study arithmetic.

"It doesn't pay to boost one industry by trying to run down another. I imagine your statistical editor was born and brought up in some coal mining town in Pennsylvania (Scranton or Mauch Chunk) and has never been more than 100 miles out of the State. And that he doesn't know whether California is this

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side of Colorado or the other. And if he was directed to go to the Black Hills of South Dakota he would probably take a steamer at New York with a ticket for Timbuctoo in his pocket.

"Here is a choice item:

The output of lead practically equalled that of 1913, which was 16,144,772 pounds. The Bisbee district of Cochise County, especially the Copper Queen and Shattuck, contributed most of this metal. In Mohave County the Tennessee mine was a large producer.

"The United States production of lead in 1913 was 862,860,000 pounds, and I do not think that a pound of it came from the Bisbee district, which is a notable copper producing region. Never heard of the Tennessee Mine in Mohave County.

#### AS TO ZINC

"And here the young man gives a particularly vicious swipe to the zinc industry when he says, rather vaguely:

The production of zinc ore showed little change from the yield of 1913, when 14,726 tons of concentrates and crude ore produced 9,428,067 pounds of spelter.

"Well, the zinc output of the country in 1913 was only 674,504,000 pounds, so he is a little off. But he may get nearer next time.

#### SOME SUGGESTIONS

"Allow me to suggest that if you want to interest an old stiff out in the West in the JOURNAL, you must send your ciphering man back to school to be reeducated. In fact, he ought to be entirely 'born' again, so as to take a fresh start. And, if he decides to take this friendly advice, suggest to him the many advantages of coming out here (instead of staying in Pennsylvania) to go through the process. Plenty of good storks out this way."

#### University Issues Index

A paper by William S. W. Kew on "Tertiary Echnoids From the San Pablo Group of Middle California," has been issued by the University of California. The University, also, has gotten out its 1914 index to its publications on geology.

#### LITTLE POTASH AVAILABLE

##### Investigation of Columbus Marsh, Nev., Subject of Report

In searching for a domestic source of potash in the United States, the Geological Survey has explored a number of the desert basins in the West. Among the regions investigated is the mud flat known as Columbus Marsh, which lies midway between Reno and Tonopah, Nev. It has an area of thirty-five square miles.

Nine shallow wells have been sunk in this marsh, and the borings and waters have been examined for potash. While commercial quantities of potash were not found and no saline beds were encountered, the data obtained in the exploration, like much of the Survey work, have a scientific value. A more extensive chemical study has been made of the muds from one of the wells by W. B. Hicks, and the results are given in a recent Survey publication, "The Composition of the Muds of Columbus Marsh," issued as Professional Paper 95 A.

This report shows that the muds contain a high percentage of potassium, only a small part of which, however, is soluble in water. The results of the chemical study indicate further that a large part of the potassium in the muds has been absorbed from solution and is held in a loosely combined form. This condition may account for the apparent disappearance of the potassium from the salines of the desert basin region, and should have a bearing on future exploration for potash.

A copy of the publication, which is quite technical in character, may be obtained free, on application to the director of the Geological Survey, Washington, D. C.

#### Holmes' Report Being Distributed

There is much of interest to every miner in the annual report of the director of the Bureau of Mines. This report is being distributed at the present time.

### SEES NO DISCRIMINATION AGAINST AUSTRIAN SUBJECTS

#### State Department Receives Complaint With Regard to Pennsylvania Bill

#### Lower Rate of Compensation for Aliens At- tacked by Ambassador

A provision of the pending workmen's compensation law in Pennsylvania which specifies that non-residents, widows or children of alien workmen shall receive only a portion of the compensation allowed has resulted in a protest to the State Department by the Austro-Hungarian Embassy. It is claimed that the law is discriminatory and will affect adversely Austrian subjects.

State Department officials, however, are inclined to the belief that no discrimination against Austrian subjects exists. The law, if enacted, will apply equally to all foreigners, whatever their nationality. Attention is called to the fact that the legislation is proposed to better the condition of Pennsylvania's laborers and their families and not the citizens of foreign lands residing abroad. The welfare of the descendants of this generation of workmen also is considered in the Pennsylvania law and it is natural that that Commonwealth should not be interested in bettering conditions of future generations in Austria and Hungary or any other foreign country. It allows full compensation for the dependents of foreigners who reside in the United States.

Even considering that alien dependents residing abroad will receive only two-thirds of the amount they would receive if residents of this country, there is a difference in the cost of living which will do much toward making up the difference. Doubtless the framers of the bill has this fact in mind. If the same amount of compensation were to be paid when residing abroad, the additional profit would induce many widows to return to their native lands. It is desired to avoid this, it is pointed out, as one of the greatest arguments in favor of immigration is the fact that the second

and third generations become desirable citizens, whereas the first generation may have been objectionable. It is believed here that Pennsylvania is within all provisions of the Constitution in attempting to pass a law which will result in its own social and economical betterment.

### FIRST-AID BOOKLET PROVES POPULAR; 200,000 DISTRIBUTED

#### Effort Will Be Made To Circulate 1,000,000 Copies of Instructive Work—Elements of Anatomy Clearly Presented

Two hundred thousand copies of "First-Aid Instruction to Miners" have been distributed by the Bureau of Mines. These copies have been given out only on request. This pamphlet is so popular that the bureau expects to distribute fully a million copies.

Attention is called to the fact that to a man, when hurt in a factory or in most other industrial activities, first-aid is a comparatively simple matter. An ambulance is called or a physician can be secured quickly. An accident in a coal mine, however, is an entirely different matter. The injured man is under ground, possibly 2 miles from the mine entrance. It is dark, and dirt is everywhere. First-aid cannot be administered in a haphazard manner. Many a death has resulted in mines due to the ignorance of workers as to proper steps to make at the critical moment.

This publication by the Bureau of Mines goes into anatomy in a simple and easily understandable manner. The circulatory system is explained with considerable detail, and ready methods of stopping loss of blood are explained. Explanations as to first-aid treatment in nearly all possible accidents are given. Among them are treatments for fractures, dislocations, sprains, burns, electric shock, suffocation and asphyxiation. Methods of bandaging all possible injuries are explained. There is a great deal of valuable information in the booklet, which contains sixty-seven pages, and an effort will be made to get it into the hands of every miner in the country.

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## **RIDICULES LEGISLATION AIMED AT MINE OPERATORS**

### **Clever Parody Applies Restrictions to Farmers —Would Protect Hired Man from Horses' Heels**

In order to emphasize the ridiculousness of many laws aimed at operators of mines, a parody on such legislation has come from the pen of a West Virginia operator. Limitations, which many would like to see enforced against mine operators, are applied to the farmer. While some exaggerations have been resorted to, in order to bring out the travesty, there is a grim lesson behind the burlesque which should not be missed by legislators who have been active in hamstringing industries.

The parody reads as follows:

A bill to regulate prices, to prevent extortion and to prevent injurious practices by farmers and certain others engaged in agriculture and commerce.

Be it enacted by the legislature of West Virginia:

Section 1. Only one price for a given commodity shall be lawful. A farmer desiring to change a price shall file a schedule thereof with the commissioner hereby created, which shall go into effect thirty days thereafter, unless suspended by the commissioner at the instance of any consumer.

The said commissioner of agriculture shall carry into effect all of the provisions of this act, and he is hereby invested with all necessary powers to that end.

Section 2. No prices shall be increased, however, except upon due proof, the burden of which shall be upon the farmer, that existing prices are confiscatory of his goods and gear. In its discretion the commissioner may refuse to permit any such increase until a valuation by its engineers and accountants shall have been taken. In such valuation the farmer shall have no credit for past profits invested in new fields or improved structures, but shall be allowed only original cost plus borrowed money invested.

Section 3. "Commodity," as used herein, includes all grains, vegetables, live

stock, dairy articles, excepting sand, gravel and manure, and hair.

Section 4. Every hired man shall work eight hours only per day, not including the Sabbath, and shall not recommence work unless he has completed a period of not less than eighteen hours of absolute rest and quiet. He shall not work on the Lord's day nor on legal holidays nor on Jack Love's birthday.

Section 5. Every farmer shall hire one more hired man than his work requires.

Section 6. The only permissible exceptions to the two foregoing sections shall be periods of stress resulting from earthquake, Halley's comet or European invasions.

Section 7. All wagons and all poles and doubletrees shall be provided with couplers, coupling with impact, so that the hired man need not go between the wheels of the wagon and the heels of the horses.

Section 8. All wagons shall be supplied with suitable brakes, grabirons, stirrups and platforms of standard dimensions to be fixed by the commissioner.

Section 9. All bulls, when moving on the highway or in unfenced areas, shall be equipped with a bell of not less than fifty pounds weight, a steam whistle and an electric headlight of at least 1,100 candlepower.

Section 9-a. All rams shall, when moving on a public highway or when having access thereto, be equipped with electric horns and headlights of such loudness and candlepower as may be fixed from time to time by the Commission of Agriculture by his order duly issued; provided, however, that this section shall not be construed to apply to hydraulic rams.

Section 10. Sheds shall be built over all fields where hired men have to work in summer.

Section 11. All fields, engines and machinery shall be fenced in; all belting shall be incased in metal housings; and all grindstones, churns, hay cutters, bull's horns and other moving parts shall be strongly incased in sheaths for the protection of the hired man.

Section 12. All barns, sheds and other outbuildings shall, in cold weather, be adequately heated, and at all times shall be well lighted and policed.

Section 13. The right to mortgage real estate is a franchise reserved to the State. No farmer shall make any mortgage nor incur any indebtedness extending for a period of more than one month without the written approval of the commissioner, obtained upon petition and hearing, and upon paying the State Treasurer 10 cents for each \$100 of indebtedness. Indebtedness incurred without such consent shall be void.

### **MINE FATALITIES DROP UNDER PREMIUM SYSTEM**

#### **United States Coal and Coke Company Makes Good Showing on Clever Plan**

A striking reduction in fatalities in the mines of the United States Coal and Coke Company has resulted from a premium system, according to Howard N. Eavenson, of Gary, W. Va., who recently read a paper on this subject before the American Institute of Mining Engineers. The number of tons produced, per fatality, has risen from 107,323 in 1909 to 428,962 at the end of 1914. Mr. Eavenson explains the premium system as follows:

"Early in 1909 the inside organization was increased by adding to the list of officials at each mine assistant mine foremen enough to provide one for each twenty-five men employed. To each assistant was assigned a definite territory, over which he had the same authority that the mine foreman exercised over the entire mine. The average number of men under each assistant foreman is about twenty-two.

"The fundamental idea in appointing these men was to provide enough executive officials at each time to allow each one to stay in any working place where any dangerous condition was found until that condition was removed; and this is the one thing rigidly required of these men.

"In order to stimulate the interest of the assistant foremen in their work and to make the prevention of accidents a personal matter with them, a premium system was started in May, 1910. Under this system an assistant mine foreman having a clear accident record for a month receives a bonus of \$5; should his record be free from accidents for six consecutive months, he receives a special premium of \$10 per month in addition to the \$5 already mentioned; and this bonus of \$15 per month is paid him as long as his record remains clear. Should he have an accident he is charged with demerits for each man who is injured under his charge each month at the rate of ten demerits for each minor, twenty demerits for each serious and forty demerits for each fatal accident. No person having ten or more demerits to his discredit at the end of each month is entitled to any premium, but if he has less than ten demerits he will receive the same premium as before.

"The mine foreman is charged with all the demerits received by the various assistant foreman under him, and is credited with all the merits received by them.

"In the case of mine foremen, the premium for a month's clear accident record is \$10 and the special premium for six continuous months' clear record is \$15. Thus a mine foreman having a clear accident record of longer than six months will receive a bonus of \$25 per month so long as his record remains clear, the assistant foremen under the same conditions receiving \$15 per month. The mine foreman's account is not charged with any demerits of the assistant foremen when these are given for neglect of duty or causes other than accidents. If a foreman or assistant foreman leaves the employ of the company and later reenters it he assumes all demerits standing against him when he left.

"Since the adoption of the premium system in May, 1910," Mr. Eavenson said, "the company has paid 2,652 premiums, amounting to \$19,005, or a cost of .015 cents per ton."

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## **MOVING PICTURES OF MINING SCENES ARE READY FOR USE**

**Bureau of Mines Conducting Educational  
Work by Showing Special  
Films**

**Pictures Will Be Loaned in Communities In-  
terested—Subjects Handled  
Interestingly**

As a part of its educational work, the Bureau of Mines has acquired a number of moving picture films. They will be displayed throughout the country. Educational features are presented in an attractive manner. One film shows operations at the property of the Oliver Iron Mining Company. It shows stripping, exploration, drilling, tunneling, and logging operations. Another film represents a mine explosion and rescue. "America in the making" shows a European peasant receiving passage money to go to America. On his arrival he is met by his brother and taken to Gary, Ind. He is guided to the Y. M. C. A. instead of to saloons. As he is unfitted for skilled labor, he is given employment as a laborer. His first lesson is one of safety. He is given goggles to protect his eyes from flying chips and is instructed in the use of a safety-hook, a hand protector with a safety spring wristband, guard for a gauge glass, locking switch, and a universal danger sign. Transferred to Ohio, he learns of other safety appliances, among them guards on a drill press, guards on planers, on circular saws, on emery wheels, belts and pulleys. He returns to Gary and goes to work at open-hearth furnaces and converters. A teacher in the night school becomes interested in the workman. They are married, and six years later a happy family is shown.

Another film shows the manufacture of coke in the Marianna Mine, of the Pittsburgh Buffalo Company.

Iron is shown in each step of its progress, from the mine to the mold.

One of the very interesting films is that showing in detail how first-aid should be applied to injured miners. A demonstration of the inflammability of coal dust is shown in another film.

Transporting coal from the face to its final destination, across the seas, is shown.

Many other interesting films, showing anthracite coal mining, field work, blasting, results of explosion tests, marble mining, granite mining, shooting oil wells and sanitary demonstrations, can be obtained by complying with the very lenient regulations which govern the distribution of these films.

It is the intention to have them shown at meetings of miners and mine inspectors, at mining institutes, association meetings and similar gatherings. They will not be loaned, under any circumstances, for exhibit where an entrance fee is charged.

### **Michigan Issues Reports.**

It can be said without fear of contradiction that Michigan is second to no State in setting forth the findings of its Geological and Biological Survey in an attractive manner. Dr. R. C. Allen, the Director, has given proof of his ability in three works just issued by the Survey. One is entitled "Mineral Resources of Michigan;" another "The Appearance of Oil and Gas in Michigan," and the third is the annual report of Dr. Allen. Each volume is bound attractively in cloth. Statistics are presented in an unusually clever manner, while the results obtained during the period under review are set forth in an extremely readable style.

### **Organize for Safety Work**

A safety-first organization has been completed by the Arizona Copper Company. The officers are: Norman Carmichael, president; P. B. Scotland, vice-president; L. M. Banks, secretary, and Joe Kiddle, chairman of the Longfellow branch.

### **GEOLOGY AND MINERAL RESOURCES TO BE SHOWN**

A new base map, showing the geology and mineral resources of Alaska, is practically completed by the Geological Survey. It probably will be ready by June 1.

### ENGINEERS FILE PROTEST AGAINST PROPOSED LAW

Say Mining Engineers Would Be Barred From  
Foremanships if Pennsylvania

Bill Carries

Mining engineers in Pennsylvania made strenuous objection to the bill presented to the Pennsylvania Legislature, providing drastic regulations under which mine foreman certificates could be issued. Their objection to the proposed changes in the mine law is said to be based entirely upon the fact that it is proposed to limit the granting of mine foreman certificates solely to those who have cut coal or blasted rock at the face for five years. They pointed out that this would debar mining engineers, and also other capable men about the mines. Timber men and track men, for instance, would be disqualified. They also contend that the proportion of uneducated foreigners now engaged at the face would limit greatly the field from which mine foremen could be chosen.

The mining engineers do not intend that technical education alone should entitle a man to a foreman's certificate. They admit a certain amount of practical experience to be necessary, but they argue that education should count in lieu of a certain number of years' experience. This is the case in the best foreign practices.

The engineers object to the limitation of the term "miner" to one who has had five years' actual experience in cutting coal at the face. By restricting the definition of the word in this manner, endless trouble would be created in the interpretation of laws already on the statute books where "miner" is used in a more liberal sense.

Resolutions setting forth these ideas were presented to the Legislature of Pennsylvania recently by the Engineering Society of Northeastern Pennsylvania.

### New Breaker in Operation

The new breaker of the Scranton Anthracite Coal Co., near Moosic, is completed and preparing coal for the market.

### ACCIDENT RECORD PUBLISHED

Raritan Copper Works Company Gets Out  
Interesting Monthly.

An accident record is being featured by the *Ingot*, the monthly publication of the General Safety Committee of the Raritan Copper Works at Perth Amboy, N. J. The accident record gives a concise account of each mishap to employees of the company since the last issue. It gives the time lost by the employee in each case. The *Ingot* is published on high-class paper and carries a number of half tones. One of these pictures in the last issue shows a brakeman using a club to apply a box car brake. He is standing in such a position that the slipping of the club would mean a fall to the track beneath. A second cut shows how the brakeman should have performed his task. He is shown sitting on the roof of the car, using the club in such a manner that he would be safe, even if the club should slip.

### Develops Toolometer

The New Jersey Meter Company, of Plainfield, N. J., announces the presentation of the toolometer, which is an air meter. It is claimed that it is the only type of compressed air meter which shows, direct on a scale, in cubic feet of free air per minute, the flow of air in a pipe or hose.

### Arizona Has Extra Session

Due to the failure of the Legislature of Arizona to reach numerous important bills, Governor W. P. Hunt called a special session which convened April 23. A general appropriation bill is to be considered as well as legislation fixing the rate of taxes.

### Directors Retire

Quincy A. Shaw and Thomas M. Perkins retired from the directorate of the Osceola Mining Company at the annual meeting in Boston recently. R. L. Agassiz was reelected president.

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**NEARING NORMAL****Coal Shipments on C. & O. Show Increase;  
N. & W. Forwardings Still Under 1914**

The shipments of coal and coke over the lines of the Chesapeake & Ohio Railway during the month of January have just been made public in the statement issued by O. D. James, auditor of freight traffic for the Chesapeake & Ohio. It shows that 1,702,047 tons were shipped during the month of January, as compared with 1,679,451 tons during the same month in 1914, an increase of 22,596 tons.

The statement of the shipments of coal and coke over the lines of the Norfolk & Western Railway for the month of February and the two months of the current year, has just been made public by T. D. Hobart, general coal freight agent. The statement shows 1,689,606 tons shipped during the month, as against 1,762,344 tons during the same month last year, a decrease of 72,738 tons. For the two months of the year 3,646,759 tons were shipped over the lines, as compared with 3,846,903 tons during the same period in 1914, a decrease of 200,144 tons.

**WRITES A "COAL CATECHISM"****William Jasper Nicolls Has New Book Just  
Off Presses**

There is something decidedly novel in "Coal Catechism," a recent book by William Jasper Nicolls. Mr. Nicolls is already known to mining engineers as the author of the story "The Story of American Coals."

"Coal Catechism" starts out in this fashion:

"No. 1. What is coal?

"Fossil fuel; a black earthy substance which is dug from the ground, and which can be burned for fuel.

"No. 2. Of what does coal consist?

"Chemically, it consists of carbon, volatile matter, sulphur and ash, with a small amount of water.

"No. 3. What is carbon?

"Carbon is one of the most common of the elements; a diamond is pure carbon, and a piece of charcoal is carbon united with a small portion of oxygen."

The "Catechism" does not stay in this elementary stage long, however. It gets into the technique of coal mining in a manner which is certain to interest laymen as well as engineers. Further along in his book, Mr. Nicolls answers the question as to the construction of flue ovens as follows:

"The Semet-Solvay flue ovens are constructed in a rectangular form, the retorts being above the foundations of the oven. The ovens are charged at the top by larries, and the coal is burned twenty-four hours or one-half the time required by the common beehive ovens. On each side of the oven are three horizontal flues running the entire length and containing gas, which heats the ovens. The flues are made of tile and are not more than 2 inches thick, so that the head easily can be conveyed through."

Continuing, he describes how the ovens are operated, how the coke is drawn, the cost of operation, the production of illuminating gas, and the saving of the by-products.

The book is attractive in itself, with gilt edges and flexible leather cover. It is published by J. B. Lippincott Company.

**PROFILES OF NORTHWESTERN  
RIVERS ARE MADE PUBLIC**

A recent publication by the Geological Survey covers profiles and surveys of the Missouri River, in Montana; Bear River, in Idaho; Hood and Sandy Rivers, in Oklahoma; Wenatchee, Quailmic, Sultan and Skykomish Rivers, in Washington.

**YUKON-TANANA REGION  
REPORT BEING PRINTED**

A report on the water resources of the Yukon-Tanana region of Alaska by the Geological Survey is in press. Especial attention is being given to the utilization of this water in mining.



### HAVE SAME SCHOOLS

#### Children of Operators and Miners Well Provided for in West Virginia

By way of illustrating the advantages of West Virginia for miners who want to enter fields where they may bring up families in sober, moral and enlightened communities, a prominent mining man of the Pocahontas field has called attention to the excellent schools in Fayette, Raleigh, Mercer, McDowell and Mingo Counties, as well as other sections. In speaking of the fine new buildings the operator told of the money spent there within the last five years for this purpose.

Several years ago some of the operators and miners noted the absence of substantial schoolhouses, with modern equipment, in the Pocahontas field. Both employers and employees were aroused to the need of such buildings and equipment, and they united in representations to the proper county authorities. It was pointed out that the bulk of the taxes was paid by people connected with the coal industry and those living in the mining camps. County authorities saw the point and took action, and the result of that action is found today in the beautiful brick school buildings in the counties mentioned. These buildings have the latest things in school equipment, and in addition some of the best teachers in the State are to be found there. The educational standard is high, and the children of miners are getting the same schooling as the children of operators, and many are preparing for college side by side.

### NEW HOMESTEAD LAW

#### Kansas Secures the Extension of the Enlarged Homestead Act to Public Lands

One of the last acts of the Sixty-third Congress was the passage of a bill extending the provisions of the Act of February 19, 1909, known as the "enlarged homestead act," to the State of Kansas. The law was approved by the President March 3, 1915. By this act a homestead entry may be made for an area of 320 acres or less of lands designated by the Secretary of the Interior as nonirrigable,

provided that the lands are located in a reasonably compact body not over 1½ miles in extreme length, that they do not contain merchantable timber, and that they are non-mineral, unreserved, unappropriated, and unsurveyed. The determination of the character of the lands as regards irrigability is intrusted by the law to the Secretary of the Interior, and the duty of making the required classification has been delegated by him to the Geological Survey. The law expressly states that before the lands are enterable as enlarged homesteads they must be "designated" by the Secretary of the Interior as meeting the requirements of the statute that the lands shall be non-irrigable. As a prerequisite to designation it must therefore be shown that the lands are not susceptible of successful irrigation at a reasonable cost from any known source of water supply.

The area of unreserved public lands remaining in Kansas is, however, not large, being approximately 102,000 acres, scattered through about twenty-five counties. The largest areas of public land are in Morton, Cheyenne, and Hamilton Counties, along the western border of the State. Even in those counties the amount of public land does not, however, exceed 3 per cent. of the total area. It is also probable that the remaining public lands in the State are of inferior quality for agriculture, as the more attractive lands have in general passed into private ownership.

Canadian railway operators are understood to be financing an expedition to seek for coal in the Hudson Bay district, the desire being to utilize the discovered fuel in connection with the proposed opening of the Hudson Bay Railway. An adequate coal supply for steamers and locomotives is considered essential to a successful carrying out of the Hudson Bay project. To secure a supply at any point accessible for ships plying on the Hudson Bay route would be a great advantage. Without such supply, coal will need to be hauled from western Canada and Cape Breton and stored at terminal points. A schooner is being equipped for use in the quest.

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**WORK ON NEW MAP****Geological Survey Charting Central Pennsylvania Quadrangle**

A base map, showing the Curwensville Quadrangle in Central Pennsylvania, is being worked on at the Geological Survey. This map is being made in accordance with the new policy of the Survey. It is the intention now to make all reports and maps readily understandable to anyone of ordinary intelligence. The old-time idea of the Survey was to set forth the broad features of geology and let the mining engineer work out the local details. Then it took a school of mines' man to understand many of the publications and maps of the Survey. As the maps and reports are being made up at present, they are readily interpreted by the layman.

**Tells of Hawaiian Lavas**

A description of the lavas of the Hawaiian Islands is being prepared by the Geological Survey.

**CONGRESS TRIMS APPROPRIATION;  
SURVEY WORK IS CURTAILED**

In the trimming of appropriations at the last session of Congress, the money allotted the Geological Survey was reduced by \$50,000. This will reduce the important work considerably.

**Interesting Paper Coming Out**

An interesting work is about to be published by the Geological Survey. It is entitled "Contributions to Economic Geology." It is composed of short papers and preliminary reports. The authors are F. L. Ransome and Hoyt S. Gale. The work probably will be out May 1.

**Patents Safety Attachment**

A recent patent was granted to George F. Royer, of Wilkes-Barre, Pa., for a safety attachment for hoisting machines.

Portugal, in 1914, exported to the United States sulphur ore to the value of \$282,477, as against \$333,521 in 1913.

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The American Mining Congress is a voluntary association supported by the dues and fees of its members. It is striving to bring about:

*First*—Safety and efficiency in mining operations.

*Second*—Intelligent conservation with a view to the highest development and use of our mineral resources.

*Third*—The stimulation of investment in practical mining operations by showing that mining is a legitimate business when intelligently conducted.

*Fourth*—Uniformity in state laws governing mining operations carried on under like conditions.

*Fifth*—Such federal co-operation through research and investigation as will furnish the basis for intelligent state legislation, and will solve those problems of economical production, treatment and transportation which are essential to an increase in mineral production.

*Sixth*—The improvement of the economic conditions underlying the coal mining industry.

If you are interested in this work, now is the time to help; do not wait until those who are now carrying the burden have become discouraged.

The appended application blank will show the way. Come in and bring the neighbor who should join this movement. Mail application to

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Munsey Building, Washington, D. C.

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P. O. Address.....

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